



# HARBOR MANAGEMENT PLAN

FOR THE

## TOWN OF WARREN

(Draft - Amended through August 11, 2004)



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The Warren Harbor Management Commission &  
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Revised 2004

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# **CHAPTER 1. OVERVIEW**

## **1.1 Forward to the 2004 Revision**

The Warren Harbor Management Plan was initially prepared in 1989 through an extensive consultative process and with the assistance of it was approved by the Town Council and the Coastal Resources Management Council (CRMC), but no longer holds an approved CRMC status. It is also out of date in some key areas, primarily as a result of increased recreational use of Warren's extensive water resources and an increased awareness of the value of its maritime tradition and its water resources. Although a relatively small waterfront town, Warren enjoys over 16 miles of historically important, economically significant, visually attractive and natural resource rich shoreline, including one of the State's most historic waterfronts and one of its most beautiful marine estuaries. The purpose of this revision to Warren's plan to manage its water and water related resources is to recognize these changes and ensure that these economically, socially and historically important resources are preserved and protected so that they may continue to benefit all Warren's citizens both today and for generations to come.

## **1.2 Introduction**

Geographically Warren is situated on a peninsula surrounded by rivers that run into the Bays. Historically, the Warren community has been an area rich in coastal resources that have developed several water dependent industries that utilize the waterfront as well as the shellfish resources in the area. More recently, the increased interest in pleasure boating has created additional demand on Warren's waters.

Increased popularity of the water and adjacent lands has made a management plan necessary to accommodate all the uses while maintaining and where feasible enhancing the river environment, its water quality, safety and navigation, and aesthetics.

Several federal, state and local government agencies work together to manage and protect Warren's rivers. The role of the Town of Warren as specified in the RI General Laws. (RIGL 46:4) is to manage four areas of activities within the Town's waterways. 1) Vessel operation within the river and water areas, 2) anchorage and moorings, 3) activities such as water-skiing, skin diving, regattas and marine parades, and 4) shore side resources potentially impacting the river and water areas.

This Harbor Plan will examine the current condition of the rivers and project the needs for various user groups on the waters. The Rhode Island Coastal Resources Management Council's (CRMC) harbor management planning guidelines offer a framework from which communities may develop a comprehensive harbor plan. Planning tools such as the Rhode Island Department of Environmental Management (DEM) standards for water quality, categories of CRMC water types, Federal Emergency Management Association (FEMA) and local building regulations, and mooring configurations are available to implement community goals and objectives.

### **1.3     Definition and Purpose**

A Harbor Management Plan (HMP) is a comprehensive document which: 1) identifies the issues associated with the harbor area and waterways; 2) suggests goals, objectives and policies for guiding public and private use of land and water in the defined harbor area; 3) provides an accurate inventory of both coastal and water resources of the Town; and 4) sets forth an implementation program which specifies the strategies for achieving the desired patterns of use on and adjacent to the harbor. Within a harbor management plan, all major issues pertaining to landside and waterside use, and the relationship among them, are addressed. Relevant technical information pertaining to water quality, navigational hazards, mooring inventory, Rhode Island Coastal Resources Management Program (CRMP) water use designations, current use inventory and natural resource areas is collected and analyzed in developing goal and policy objectives. In addition, all harbor user groups, as well as the public, are actively involved throughout the planning process.

Title 46, section 4 of the General Laws of RI grants municipalities the authority to establish Harbormaster ordinances and rules and regulations pertaining to the administration of their harbors. The objectives of a harbor management plan for the Town of Warren are to provide a comprehensive, long-term evaluation of the activities on or adjacent to the tidal waters of Warren, to provide for a comprehensive evaluation of current and/or proposed municipal harbor management programs; to establish ordinances or regulations consistent with applicable regulatory and management program requirements of the State of Rhode Island; and to promote the delegation of primary authority for implementation of the Harbor Plan to the town.

By adopting a comprehensive harbor management plan, the Town of Warren can create a vision for the harbor areas and waterways and establish mechanisms for achieving that vision. The harbor management plan will place the Town's harbor policies at the forefront of decisions regarding harbor development and protection and avoid the need to react haphazardly to each problem and project as it arises.

The Warren Harbor Management Plan will provide guidance to the Town government, Boards and Commissions throughout the decision-making process for projects along the Warren waterfront. The HMP will also provide a reference for State decision-making bodies reflecting the desires of the Town regarding coastal development and other integrated with the Town's Comprehensive Community Plan.

### **1.4     Methodology**

This document is the product of an extensive participatory public planning process. Rather than establish a new harbor planning board, the Town Council of the Town of Warren elected to appoint a committee to oversee the development of the Harbor Management Plan.

The Warren Harbor Committee held the first Public Workshop on February 22<sup>nd</sup>, 1989, to identify issues and goals affecting the Warren Palmer and Kickemuit Rivers. Public notice of all

meetings was an extensive and included news article in various local papers. Well over 100 people attended the first public workshop.

Issues in all three rivers were identified at this first public workshop. The issues were consolidated into five categories: boating safety/enforcement, commercial fishing, moorings, public access and water quality. Working groups were formed and met on March 7, 1989 to further discuss the issues and to provide more specific information pertaining to each issue and its relation to the Warren, Palmer and Kickemuit Rivers.

Five working groups were established to review the available information and to evaluate issues for each area of concern. The working groups met several times and produced reports for the Harbor Committee. The URI Coastal Resources Center, CRMC and DEM staff members completed an inventory of all coastal resources, defined the harbor boundaries and collected all relevant technical information pertaining to all of the rivers. Based on the resources inventory prepared by the CRC and CRMC staffs, the Harbor Committee developed policies and recommended actions.

Drafts were developed by the CRC in consultation with the Harbor Committee based on the assessment of the technical information and the issues, goals and policies. Additional feedback was solicited from the community through the public workshops. Revisions were made based on public review and a final harbor management plan was presented to the Town for adoption. The plan was then sent to the CRMC for its approval.

## **1.5 Goals and Objectives**

The Town of Warren is committed to the preservation and upgrading of all its waterways.

### **It shall therefore be the goals of the Warren Harbor Management Plan to:**

1. Plan, regulate and provide for the use of the harbor and rivers to resolve the conflicts between harbor uses.
2. Provide for the clean, safe, orderly, and efficient use of the water and waterfront, consistent with the goals, policies and standards of the Rhode Island Coastal Resources Management Program.

### **The objectives to reach these goals are to:**

1. Respond to the increasing demand for coastal recreational opportunities by:
  - a) Giving the highest priority and preference to water dependent uses in Warren harbor waterfront locations in accordance with local zoning ordinances, comprehensive plans and other community policies;
  - b) Pursuing opportunities for improving existing and providing new areas for public access and conservation
2. Work to improve water quality in the harbors and rivers;

3. Provide for the efficient and equitable distribution of commercial and private moorings consistent with the DEM water quality goals and the policies of this harbor management plan;
4. Provide for the public utilization and enjoyment of the urban waterfront by preserving the maritime character of the municipal harbor and by encouraging marine uses which create additional public access opportunities;
5. Recognize the importance, both historically and economically, of the state's shellfish and fishing industries and resources and take appropriate measures to ensure their protection, revitalization and continued viability;
6. Provide safe, unobstructed access to federal navigation channels, anchorage and harbor facilities;
7. Utilize harbor management funds supported by revenues from harbor use fees and other monies in the maintenance, administration and operation of municipal waters;
8. Integrate the comprehensive plan and zoning ordinances of the Town of Warren with goals, objectives, policies and recommendations of the Harbor Management Plan.
9. Encourage community cooperation among the three Towns of Barrington, Bristol and Warren;
10. Preserve and protect the Kickemuit River as an SA waterbody suitable for shellfishing and water contact sports.
11. Improve the Warren River water quality to protect the town beach for water Contact sports and increase areas southerly for shell fishing.

## **Chapter 2. Harbor Description**

### **2.1 Geography**

Warren, Rhode Island is often referred to as the smallest town in the smallest county of the smallest state. With only 5.8 square miles of land area, it has 16.5 miles of coastline bordering the Warren, Palmer and Kickemuit Rivers and Mount Hope Bay.

The Warren River is easily accessible from the East Passage of Narragansett Bay. The river cuts northeast into the Barrington River and the Palmer River. A junction marker marks the entrance to the Palmer River northward under the Route 103 Bridge for two miles along marshland into Massachusetts.

The Kickemuit River, which opens two miles north of Mount Hope Point on Mount Hope Bay, is bordered by 5.75 miles of Warren shoreline. The entrance to the river is known as Bristol Narrows and is marked by buoys. Of the land surrounding the Kickemuit, 85% is in Warren, with the remaining area belonging to Bristol. To the east of Bristol Narrows, one mile of waterfront property looks south onto Mount Hope Bay.

Only 1.5 miles of Warren waterfront has been developed for commercial use; the remaining 15 miles of shore is residential or remains as marshland and farmland.

### **2.2 History**

Warren, or “Sowams”, as named by Massasoit and his tribe, was initially inhabited by the Wampanoag Indians and was the location of early contacts between the Indians and the Englishmen of Plymouth, Massachusetts. In the early 1600s the Dutch traded along the Warren River, and as early as 1632 the English established a trading post on the western bank of the Kickemuit. This land was then bought from the Wampanoag Indians in 1653. However, not until after King Philip’s War of 1675 was the land effectively platted and settled in large numbers by the English. The Town of Warren was incorporated in 1746 and named for Sir Peter Warren, an admiral of the British Navy.

Warren’s development has been determined largely by the town’s strategic and accessible location halfway between Providence and Newport and adjacent to the deep river channel of the Warren River. Warren’s deep river waterfront attracted shipwrights, carpenters, coopers, and merchants. By mid 1700 the waterfront accommodated activities such as Caleb Carr’s ferry to Barrington, Cole’s Hotel and Carr’s Tavern, an establishment providing “entertainment for man and beast.” Many vessels that sailed around the world were built along the Warren waterfront at Sylvester Child’s shipyard, Cromwell and Caleb Child’s shipyard or up the Palmer River at Barneysville or Bungtown. Warren could not only build her own ships but also fully rig them as well. The growing prosperity and skill of the settlers was reflected in fine homes built in the 1760’s and early 1770’s.

By the time of the Revolutionary War, Warren had become a center for shipbuilding, contributing many vessels to the cause of the battle. The war interrupted Warren’s rapid



mercantile growth when events such as the British raid of 1778 damaged shipyards, businesses and seventy flat boats including the row galley “Washington” stationed to guard the entrance to the Kickemuit River. Nevertheless, the recovery was rapid. Shipbuilding regained leadership among the town’s industries while merchant service, West India trade, and coastal trade all flourished after the war. From 1790 to 1810 Warren was second only to Providence as a shipbuilding center. Whaling, initiated before the Revolution, was revived in 1821, and by the peak year of 1844, Warren was the homeport of twenty-six whalers.

Prior to the Civil War, Warren saw a decline in whaling and shipping activities, but the oyster industry prospered. Around 1880 Boston merchants brought southern oysters up the Warren River to small shucking houses on the waterfront. When the seeding of oyster beds, pioneered by Joseph Stubbs, became economically feasible, Warren men began to grow and market these mollusks themselves. By late 1890, Warren was a strong manufacturing community though not distinguished by exceptional wealth or prosperous merchant families. The twentieth century brought economic depression and depreciation of the waterfront district, with commercial industry prevalent over much of Main Street. Additionally, many of the historic houses of the era of sea-related wealth were neglected.

Throughout the first half of the twentieth century, the railroad right-of-way provided a structure for the town’s growth. To the east of the tracks was predominantly industrial and commercial use; while to the west was a densely built residential, commercial and industrial waterfront-oriented historic community (Rhode Island Historic Preservation Commission). A suburban trolley went down Main Street. As travel became easier, summer home sprouted along the Kickemuit River. In 1887, “Camp Cady”, a summer residence, was the only house on the western slope of the Kickemuit River. Around it grew the homes of Laurel Park. On the eastern shore of the Kickemuit River, Touisset Point began development in 1901. Building of the Touisset Tennis Club in 1919 sparked construction of this summer community

Demand for industrial land along the Warren River has remained a constant pressure. Shipbuilding continues to be a major industry, with yards such as Blount Marine manufacturing ferries and cruise ships. The sewage treatment plant was constructed on the shore in the 1970s. The Warren Waterfront Historic District, consisting of the town of Warren and a few scattered outlying farms, was named to the National Register of Historic Places in 1973. The area is recognized as having a unique social and historic record worthy of commendation and preservation, which in many cases is illustrated, through the architecture of the buildings of the district. The commercial fishing industry continues to have its impact on the waterfront. A food processing plant utilizes offshore shellfishing resources. The increased needs of the commercial fishing industry for safe docking facilities and access to the water has encouraged the town to acquire monies for construction of a new commercial pier and docking facility.

### **2.3     Projections of Future Growth**

During the past ten years the number of commercial and recreational slips and moorings in the waters of Rhode Island has increased by over 75 percent (Rhode Island Coastal Resources Management Council). A study initiated over the July 4, 1978 holiday weekend by Clarkson Collins showed that the total number of slips and moorings in Rhode Island was 8,965 (CRC,

1979). A 1987 International Marina Institute study and a Coastal Resources Management Council update of this study in 1988 show that the total number of slips and moorings has risen to 15,785, an increase of 6,820 over this ten-year period. This increase in the number of moorings for recreational boaters has created a growing concern in many communities over the current management of their water.

One obvious concern is the fact that multiple uses are made of the water. Traditional activities; shorefront harvesting, quahogging, fishing, swimming, canoeing, small boat sailing, etc., now compete with powerboats and sailboats on moorings and in slips, and personal watercraft.

The waters within the Town of Warren are highly desirable for their accessibility from Narragansett Bay, scenic value as destination ports, and sheltered areas. Congestion frequently occurs in the Kickemuit River during the boating season, the Kickemuit being a popular and scenic waterway for weekend boaters. If not managed properly, the finite coastal resources of the Town could become endangered. Additionally, severe congestion problems such as lack of parking spaces and excessive boating densities would result. Most importantly, uncontrolled growth could result in serious boating safety and navigation problems. An analysis of this growth pattern is one aspect in the formulation of a municipal harbor management plan.

## **2.4 Physical Setting**

### **2.4.1 Harbor Boundaries**

For the purposes of the Harbor Management Plan, the boundaries of the harbor will include all of the waters within the jurisdiction of the Town of Warren for the Warren River, Mount Hope Bay, Palmer River/Belcher Cove and the Kickemuit River. (See Map #1)

### **2.4.2 CRMC Water Type Designations**

The following boundary lines describe those points along the coastline where one water use type changes to another. These designations are depicted on Map #2 in Appendix G. Each mapped boundary is coded by number on the map corresponding to the verbal description listed below. Except where otherwise noted, the water use classifications along any shoreline and between any two boundary line designations run parallel to the shore and extend 500 feet seaward from the mean high water mark.

Type 1 waters and conservation areas. Included in this category are (1) water areas that are within the boundaries of designated wildlife refuge areas, (2) water areas that have retained undisturbed natural habitat or maintain scenic values of unique or unusual significance, and (3) water areas that are particularly unsuitable for structures due to their exposure to severe wave action, flooding and erosion. (RICRMP, Sec. 200.1) The boundaries for Type 1 have been designated within the Palmer River from the Massachusetts line extending south to a point due east from the north side of the end of Stanley Avenue in Barrington.

Type 2 waters are categorized as waters in areas with high scenic value that support low-intensity recreational and residential uses. These waters include seasonal mooring areas where good water quality and fish and wildlife habitat are maintained. Type 2 waters are designated in the Palmer River seaward of Type 1 waters and south of the easterly line drawn from the north side of the end of Stanley Avenue in Barrington. Type 2 waters are also located in Belcher Cove south of the pipeline. Type 2 waters are located in the Kickemuit River to the tip of the peninsula near the end of Brownell Street, Warren. Type 2 waters are also located in Mount Hope Bay along the Warren shoreline extending 500 feet seaward.

Type 4 waters includes (1) large expanses of open water in Narragansett Bay and the Sounds which support a variety of commercial and recreational activities while maintaining good value as a fish and wildlife habitat; and (2) open waters adjacent to shorelines that could support water-dependent commercial, industrial, and/or high-intensity recreational activities. Type 4 waters have been designated within Mount Hope bay seaward of Type 2 waters in Warren's jurisdiction.

#### **2.4.3 Water Depth and Federally Maintained Navigation Channels**

The water depths of Warren's coastal waters are depicted on NOAA chart #13221 (map #3). The depths within the Warren River generally range between 7 and 14 feet below mean low water (MLW), with the designated channel averaging 10 feet below MLW.

The Kickemuit River is relatively shallow in the upper reaches and along the shoreline with depths typically less than 5 feet. The lower portion of the River carries depths up to 16 feet in the interior sections.

The Palmer River has not been charted; however, it has been observed that the waters are shallow and typically less than 5 feet.

#### **2.4.4 DEM Water Quality Classifications**

In 1975 the Rhode Island Department of Environmental Management established a set of water quality standards for the waters of Warren. A water quality standard defines the water quality goals of a water body by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. Therefore, the designated water quality standards may not reflect current conditions. Water quality standards are intended to protect public health and welfare, enhance the quality of water and serve the purposes of the Federal Clean Water Act, and the General Laws of Rhode Island (Chapter 46-12).

The objective of the Clean Water Act is that, whenever attainable, water quality standards shall provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water; take into consideration their use and value as public water supplies; and take into consideration their use for aquaculture, industrial, and other purposes including navigation.

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**TABLE 1**

***Tidal Water Classifications***

Class SA -	Bathing and contact recreation Shellfish harvesting for human consumption Fish and wildlife habitat
Class SB -	Shellfish harvesting for human consumption after depuration Bathing, other primary contact recreational activities Fish and Wildlife habitat.
Class SC-	Boating, other secondary contact recreational activities Fish and wildlife habitat Industrial cooling Good aesthetic value

*Source: State of Rhode Island, Department of Environmental Management, Division of Water Resources, "Water Quality Regulations for Water Pollution Control," 1984.*

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DEM water quality classification standards for the Town of Warren (Map #4) are listed below:

- SA- Palmer River from the Massachusetts line to the Railroad Bridge at Route 103;  
Kickemuit River
- SB- Warren River south of the jetty to Jacob's Point
- SC- Warren River from the Railroad Bridge south to the jetty at the town beach

All other tidal water areas are "SA".

#### **2.4.5 Flood Zones**

Most of the tidal water areas in Warren's jurisdiction are subject to extreme fetch conditions (V-zones) where coastal flooding and storm surge associated with hurricanes raise the water level 18-22 feet above present high water heights. Additional precautions need to be considered when establishing mooring fields. (Map #5)

### **2.5 Coastal Resources**

#### **2.5.1 Wildlife and/or Conservation Areas**

Several areas along Warren's shoreline have been designated conservation areas or open space by either the town or the state (See Map #6). Green Acres, a parcel containing 60-70 acres, is

located above the saltwater/freshwater interface of the Kickemuit, adjacent to School House Road; additionally a small plot of Green Acres is located adjacent to Belcher Cove. This town conservation area contains a considerable expanse of freshwater wetlands abutting the river.

The state designated bikeway runs through Warren along the old railroad route. The scenic rights to Jacobs Point abutting the Warren River are owned by the state, a measure that is meant to conserve the natural habitat of the wetlands environment.

The town has zoned the south and west edges of Belcher Cove as recreational/conservation land. Jamiel Park is located just south of the cove; however, much of the shoreline along this reach is undeveloped.

## **2.5.2 Fish and Shellfish Resources**

**Shellfish Resources:** Much of the Warren area is closed to shellfishing due to adverse water quality, either on a permanent basis (Warren River and Belchers Cove), seasonally, or conditionally as health risks are determined within Narragansett Bay (see Map #7). Regardless, in terms of the ecosystem's biological productivity, the Warren River's central location between Hundred Acre Cove and harvesting grounds provides a valuable environment for the population of brute stock for the adjacent areas rich in shellfish resources, such as Ohio Ledge and Barrington Beach. (Ganz, 1989)

**Fisheries:** The Warren and Kickemuit Rivers provide an important environment for migrating and spawning and a protected nursery for a variety of fish crucial to Rhode Island's recreational and commercial fishing interests.

The waters of Warren are popular to schooling menhaden in populations viable for industrial fisheries. The State has regulated the fishery and closes areas such as the Warren and Kickemuit Rivers to large purse seiners once one million tons have been harvested in Narragansett Bay.

Anadromous fish such as blueback, alwives and American shad utilize Warren's riverine and estuarine systems for spawning and nursery grounds. Barrington's Runnins River, the only existing natural shad run in Rhode Island, along with the headwaters of the Palmer River in Massachusetts, provide the populations for a substantial recreational fishery of native shad in the Warren and Palmer Rivers (Gibson, 1989). The Kickemuit hosts juvenile species in the past; however, the construction of the Route 103 dam has impeded their run to the headwaters. It has been observed that local fishermen have maintained the run by dip netting the fish over the dam so that passage to the spawning grounds is feasible.

The Town of Warren presently has been awarded a grant to construct a fish ladder, scheduled for construction at a date to be determined.

The Kickemuit and Warren Rivers offer an excellent refuge to small fry. Atlantic Menhaden and Silversides are summer residents in both rivers offering forage to the larger migratory species. Some species, such as Winter Flounder, set up home year round while others leave in the winter for deeper waters only to return in the spring.

The Warren and Kickemuit Rivers have seen considerable development along their banks in the last decade, which could have a profound effect on fisheries if unchecked in the future. Excess runoff from streets causes silting of the water in both rivers. Runoff containing fertilizers from surrounding farms and plush landscape can cause algae blooms, which in turn rob oxygen from surface waters. Atlantic Menhaden need a constant supply of oxygen flowing through their gill plates for survival. Without this food supply the larger predatory fish are also forced to leave, usually to colder northern waters. (See Appendix F for list of fish species)

### **2.5.3 Biological Habitats**

The Warren area has retained much of its natural salt marsh environment. Present along the shoreline are relatively large patches of undisturbed areas, providing a necessary natural habitat for plants, waterfowl, and birds.

This valuable saltmarsh attracts several unique species. The expanse abutting the Palmer River, for example, contains unique plants scattered within the marsh such as bulrush and seaside gerardia, not typically common to the Bay area (Enser, 1989).

The Northern Diamond Back turtle, a truly unique resource to the area, is frequently sited in the Palmer River. This species nests in Hundred Acre Cove upstream of the Barrington River, and is noted as the only Rhode Island location for the species (Enser, 1989). It is highly likely that the other river systems within Warren/Barrington are also utilized by the turtle.

The salt marsh and tidal flats attract a variety of waterfowl providing an aesthetic resource to the area. Surveys in 1982 showed high usage by black ducks, mallards, Canadian geese and scaup or breeding and nesting grounds (Allen, 1989). The nesting area is also popular to the mute swan, though the abundant population is presently under a DEM program for species control. Additionally, substantial populations of diving ducks such as bufflehead, ganzers, canvasback, and goldeneye inhabit the area during migration.

The waterways host various types of long legged wading birds including several varieties of egrets and shorebirds, while the marshes provide a feeding ground for others such as black crown night heron and glossy ibis.

## **2.6 Current Uses**

### **2.6.1 Commercial Fishing**

From the early eighteenth century until the 1950's Warren's economy was predominantly based on maritime activity. The whaling industry started in the late eighteenth century and peaked between 1830 and 1850. The late 19<sup>th</sup> century saw the beginning of the oyster industry, which flourished through the first third of the 20<sup>th</sup> century. The historical flow of Warren's fishing history is illustrated by the whaling facility started by the Gardener Brown Company in 1840. When whaling declined the facility was taken over by the Narragansett Oyster Company, and now, is a clam processing facility owned by the Blount Seaford Company.

Warren's present fishing industry is small, primarily shell fishing, but based on quahogs; both near shore and offshore varieties and shell clams.

The near shore fishery, both quahogs and little necks (juvenile quahogs) are harvested by hand rakers. Present facilities for quahoggers include the two town docks that host some 40-45 quahogging boats, typically 17-23 foot outboard slips. Private docks host a number of other skiffs and many quahog boats are trailered, although the only town boat ramp is in poor condition. There are presently several dealers for Bay quahogs, one of which has a waterfront facility on Water Street for landing and retail sale.

The Ocean fishery is Ocean quahogs (also known as Black Quahogs) and surf clams. Harvesters include the 90-foot dredger "Wando River" based at a private pier owned by Blount Seafood that buys and processes ocean quahogs for firms such as Campbell Soup. It also sells its own soups on a wholesale and retail basis.

Several local vessels in the 36 to 50 foot range, based at private piers, engaged in near shore lobster fishery. One of the Town Commercial docks has limited unloading facilities. Two trawlers in the 40-50 foot range are currently docked at the Town Wharf on a temporary basis.

Another class of vessels (and fishery) consists of combination vessels ranging in size from skiffs to forty foot boats engaged in pot fishing for conches and combined fishing such as hand-raking / lobstering / conch pots. These vessels are berthed at private piers or are trailered and work in near-shore fisheries. Blount Seafood is a buyer of conch and a dealer for conch bait.

### **2.6.2 Other Commercial Uses**

Blount Industries is a significant waterfront shipbuilding firm that focuses on construction of ferries and cruise ships in the 300+ foot range. It also runs American-Canadian Cruise Line and a Bay based tour ship from the same location using its own vessels.

Commercial use is rounded out by a number of construction tugs, barges, and marina maintenance vessels.

### **2.6.3 Recreational and Commercial Moorings**

Warren has seven active mooring fields, which are effectively filled, and one inactive mooring field. There are waiting lists for moorings in both the Warren and Kickemuit rivers. There are some locations available at the Southern end of the Warren River due to access problems. The one launch service only serves the Northern part of the harbor. There are a number of commercial moorings in the Warren River, most of which are rented to recreational boaters.

After a period of some laxness in the past, the Warren Harbormasters office is effectively managing all mooring fields. Mooring ordinances were revised to address problems and are now being implemented both effectively and fairly. A number of computer based management systems have been developed to assist in management. A mooring inspection system has been

established and the use of moorings is being monitored to ensure proper utilization and reduce the waiting list.

Both ordinance enforcement and safety are being addressed through the purchase of a new Harbormaster boat, an increase in staff for the Harbormasters office and through coordination with the Bristol Harbormasters office for more efficient coverage of the Kickemuit, both with regards to patrolling and pump out services. Regular pump out service is provided to all moorings.

## **2.7 Recreational Areas and Shoreline Access**

### **2.7.1 Recreational Areas**

Warren has a fine Town Beach on the Warren River, which is enhanced by trees, grass and adequate parking. It has been impacted by pollution problems in recent years, but the causes have been identified and remedial action is underway (2003). The Warren River is also used for dinghy sailing.

The Kickemuit River has long been one of the finest recreational areas in the State. Use includes activities such as kayaking and, bird watching, swimming, quahogging, water-skiing and sailing. Increasing pollution led to the establishment of the Kickemuit River Council, which has effectively led an extremely successful clean-up effort. The Council now has serious concerns about the environmental impact of potential commercial development.

### **2.7.2 Shoreline Access**

The Town of Warren has a number of shoreline access areas as listed below and depicted on Map #6. In addition to the CRMC designated public rights-of-ways, the Public Access Subcommittee has identified several areas for potential development of water access. These are listed in Appendix E.

#### **Public Rights-of-Way (ROW)**

The commercial fishermen's Town Dock facility includes a dock and ramp with an adjacent parking lot, located at existing ramp site, adjacent to sewer treatment plant on Warren River.

Maple Street (R-1) An asphalt ramp that extends west from the west end of Maple Street to a cobble beach bordering the Warren River. At pole #8. (Beach Terrace) L: 143'/W"40'.

Patterson Ave. (R-3) A parcel of land covered with brush and marsh grass that extends east from the east end of Patterson Ave. to a wetland area bordering the Kickemuit River. At pole #10. Just north of Laurel Park. L:158' / W:40'.



Shore Drive 3 (R-6) an area of broken pavement and brush that extends west from the intersection of Shore Drive and Chase Avenue to a cobble beach bordering the Kickemuit River. At pole #12 (Touisset) L:170' / W:10'.

## **2.8 Waterfront Areas/Shoreline Zoning Districts**

The majority of land along the waterways surrounding the Town of Warren is zoned for residential use. The only true commercially zoned area along the warren waterfront is located along the Warren River and stretches from the Barrington town line, along Water Street, and ends at the Warren Town Beach. This stretch of land adjacent to the waterfront is zoned Waterfront District, with the exception of the Narragansett and “American Tourister” property, which are zoned Special District.. The land along Belcher’s Cove and areas north along the Palmer River are Conservation District lands.

The residential areas along the waterfront range in land use density from R-10 to R-40, where densities of 10,000 (R-10) square feet to 40,000 (R-40) square feet are the minimum lot sizes required for development.

The Waterfront District and Special District allow a variety of commercial, industrial and residential uses, many of which require special use permits after review by the Planning Board and Zoning Board of Review. The Town took steps in 2003 to further protect this area by enacting Waterfront Design Review. This process allows the Town to monitor site planes and aesthetics of the historic working waterfront area.

As a result of private/public partnerships between the Town of warren and The Trust for Public Land, key waterfront parcels have been preserved through deed restrictions and open space easements. These properties will in perpetuity be restricted to water-related and water-dependant uses, including boat building, marinas, docks, marine repair, etc. the historic natures of these properties are further protected through historic easements requiring all architectural work to be first approved by the Warren Voluntary Historic District Committee.

## **CHAPTER 3. Issues, Policies and Recommended Actions**

The issues identified at the public meetings helped to establish the Warren Harbor Management Plan remain, and as use of the waters and interest in conservation of both natural and historic resources have increased, some of these have increased in priority and new issues have emerged

Listed below, the issue categories appear in the following format: issues statement, issues discussion, and recommended policy and action.

### **A. BOATING SAFETY/NAVIGATION**

#### **Issue:**

Boating safety and navigation in the waters of the Town of Warren need to be addressed in a more comprehensive manner. Increased numbers of boats, unskilled people piloting these boats at unsafe speeds in close proximity to other water uses, and a lack of adequate enforcement make the waters of the town dangerous for safe boating and recreation.

#### **Discussion:**

The tidal changes that occur in Narragansett Bay cause swift currents. The Warren River, being a narrow and naturally deep river, creates severe currents at tidal changes that make Navigation an extremely difficult task. This problem also occurs at the Narrows of the Kickemuit.

Anyone purchasing a boat may operate it the same day, without the aid of a license. The result is an ignorance of boating safety rules, which further poses a safety risk on the water and causes numerous accidents. Boating safety regulations should be a necessary requirement when operating a vessel. Yet, this is not the case as many training classes are held in the Warren River where interference with vessels in the channel is common and it is perceived that the training vessels have the right of way. They do not.

These conditions create a demand for the presence of the harbormaster and evidence the need for additional patrols on the town's waters. Patrolling the Warren and Palmer Rivers is a full-time task, given the existing conditions. The Kickemuit River is also an area that needs constant patrolling, but can only be accessed by the harbormaster by travelling around Bristol, a time-consuming task. There is a boat-launching ramp in the Kickemuit, but it is unusable.

The Kickemuit is also a "destination port" for many vessels that use it as a weekend retreat. On any given weekend, vessels will anchor, moor, or raft to other vessels in the River. This not only causes congestion but also hinders navigation. In addition, if a boating accident did occur in the Kickemuit River, the fact that the harbormaster would have to travel around Bristol to reach the River or that a rescue vessel would have to use a launch that was in poor condition furthers the premise that the Kickemuit River needs constant patrolling.

Warren is in need of additional patrolling resources in particular areas of its waters for boating safety problems. These areas include the Kickemuit River “Narrows” area and the Warren River, specifically at “Buoy 18”. The Buoy 18 location is plagued with boating safety problems because of the high volume of boating traffic traveling in and out of the channel. Another trouble spot experiencing the problems of boating congestion and boats operating at unsafe speeds is the “Narrows” on the Kickemuit River. This area is popular with recreational boaters and is congested, which results in potentially dangerous boating incidents. The combination of commercial shipping, moorings, recreational boating, commercial fishing vessels, experienced and particularly inexperienced sailboats, and any boats traveling at unsafe speeds through this portion of the Warren River is extremely dangerous.

These problems could be ameliorated if there were sufficient harbor patrols available. Unfortunately, one harbormaster cannot be at two or more problem areas at the same time. More harbor patrols are needed to mitigate these and other boating safety problems.

#### **Recommended Policy:**

It is the policy of the Town of Warren that utilization of the Town’s water resources by both commercial and recreational users will be done in a safe and prudent manner in accordance with Town Ordinances and State law and with due respect for the safety of all vessels and persons working on and enjoying the waters of the Town.

#### **Recommended Actions:**

- Action A-1.*** Increase the hours of the harbormaster and/or seek hire additional full or part-time help as assistant harbormasters and adopt the (forthcoming) Harbor Ordinance.
- Action A-2.*** Establish the conditions required to permit the Deputy Harbormaster and designated Assistant Harbor Master to be assigned authority to enforce Chapter 10 of the Town Ordinances: “Harbors and Vessels”.
- Action A-3.*** Require that the harbormaster and any assistants trained in CPR, basic first aid and all Division of Boating Safety courses required for harbormaster training.
- Action A-4.*** Develop a cooperative agreement with the towns of Barrington and Bristol to assist in the patrolling of the Rivers. This agreement should specifically involve the town of Bristol for patrols of the Kickemuit River.
- Action A-5.*** Require the harbormaster and Harbor Commission to organize and conduct, with the assistance of the state’s Division of Boating Safety, safe boating courses for the public-at-large.

- Action A-6.** Expand and establish “no wake zones” for specific areas of the town.
- Action A-7.** Develop a memorandum of agreement with the towns of Barrington and Bristol for cooperative patrols of the Rivers and seek to allow each town’s harbor masters to enforce boating safety and navigation rules within the Warren Ordinance.
- Action A-8.** Contact the State Division of Boating Safety, the U.S. Coast Guard Auxiliary, Power Squadron and interested local certified residents at least yearly to help assist with public workshops/courses for boating safety.
- Action A-9.** Petition the state Division of Boating Safety to expand and/or establish “no wake zones” in specific areas of the Warren, Palmer, and Kickemuit Rivers.
- Action A-10.** No wake zones have to be established, and where appropriate, expanded in the Warren and Kickemuit Rivers.

**B. COMMERCIAL FISHING**

**Issue:**

Dockage for small scale fishing vessels is limited and may decrease in the face of potentially increasing demand.

**Discussion:**

Support of small-scale commercial fishing by the Town was limited until a town fishing dock was built with grant funds. A second dock is in need of significant repair. The only launching ramp located in the town was poorly designed and has no supporting facility or parking availability.

Except for two temporary docks at the Town Wharf, trawlers are located at rented private facilities, which may or may not be available over the long term. At the same time, strict conservation measures on fishery stocks are expected to increase harvestable stocks significantly in the near future, which will create increased commercial fishing opportunities, leading to an economic opportunity for Warren to serve as a base for Trawlers and similar vessels.

**Recommended Policy:**

The Town of Warren will integrate support for commercial fishing in the development of the Warren Waterfront.

**Recommended Action:**

The Town should take advantage of waterfront owned or controlled by the Town (e.g. the waterfront in front of the waste treatment plant) to expand physical facilities for fishing vessels up to fifty feet as part of the development of the Warren Waterfront as set forth in Section I (Town Docks) below.

**C. RECREATIONAL AND COMMERCIAL MOORINGS****Issue:**

The dramatic increase in demand for moorings has necessitated changes in mooring regulations to ensure proper management of moorings and equitable access to mooring opportunities. Additionally, increases in the number of moorings have an effect on other uses of the river as well as an impact on the environment: particularly in the Kickemuit. While the Harbor Commission began addressing these issues more concretely a few years ago, its efforts were constrained until an experienced Harbormaster was recruited in 2002. Rapid progress was made during that year, and is continuing. None of these moorings are in federal navigation channels.

**Discussion:**

Significant action to address these issues began in 2002 when the Warren Harbor Management Commission, in consultation with the new Harbormaster, developed proposed changes in the mooring section of the Town Ordinances as required to reflect the above policy statement and as needed to enable the Harbor Master to implement that policy. The Town Council adopted the proposed changes in December of 2002.

Additional hours were allocated in the Town Budget to allow the Harbor Master and his assistants to take the necessary action to implement and regulate mooring fields in accordance with policy.

Also in 2002, the Harbormaster began implementing the current ordinances and prepared for implementation of changes to the ordinances adopted in 2002. A new Harbormaster boat that was put into service in 2002 will aid the achievement of this purpose. These actions have, to date, included the following:

- All existing moorings were mapped by GPS coordinates. Illegal and abandoned moorings were identified, a process assisted by the adoption of brighter mooring stickers with better adhesives.
- Initial action was begun on eliminating or regularizing illegal moorings and removing abandoned moorings.
- Based on above actions, a number of individuals on the waiting list were allocated moorings.

- Mooring application and renewal application forms were redesigned to allow better tracking of boats and individuals requesting moorings for them. This will allow quicker location of individuals in cases of emergency, increase the ease with which illegal moorings can be identified and improve the management of the waiting list.
- Other required forms, such as violation notices, were brought up to date.
- In late 2002, the 7 active mooring fields were mapped by GPS coordinates that were converted to the State mapping system. The maps of the mooring fields are attached in Mooring Field Appendix
- The proportion of residential and non-residential moorings is established at a 3-1 ratio in accordance with Federal Policy.
- The new ordinances require that registered mooring inspectors on installation and every two years inspect moorings. A number of qualified individuals have registered with the Town as Mooring Inspectors.

Plans to move forward on other actions are currently underway. These actions include:

- With the renewal of exiting mooring permits and issuance of new permits, permit holders will be advised of the new ordinances, made aware of relevant ordinances, and advised that, unlike the past, ordinances will be fully enforced. During this process the identification of currently illegal moorings will be completed and appropriate action taken. Abandoned moorings will be removed.
- Mooring fields shall be appropriately marked and fairways within the field shall be marked after they are modified as required.

The Harbormaster's duties have increased as a result of the additional responsibility for management of the Town Wharf, including rental slips, and management plans and budgets are being worked on.

### **Recommended Policy:**

Designated mooring locations in established mooring fields in the waters of the Town of Warren shall be allocated to residential and non-residential recreational and commercial users on an equitable basis in accordance with Town mooring ordinances, State and National policies and regulations, the interests and safety of other recreational users of the Town's water resources and the overall interests of the residents of Warren.

### **Recommended Actions:**

- Action C-1.* The planned areas of expansion of existing mooring fields and the additional field originally designated in the initial 1989 Harbor Management Plans should be activated.
- Action C-2.* Commercial activities supporting moorings, such as launch services, mooring placement, inspection and winterizing should be encouraged. If commercial operators are not interested in providing launch services to mooring fields that are difficult to access, the Town should consider the implementation of a launch service based at the Town Marina.
- Action C-3.* During the course of policy implementation, the Harbor Commission and the Harbor Master should regularly assess the need for changes in the ordinances and draft, for submission to the Town Council, any recommended changes in the regulations that appear necessary.

### **Recommended Actions - Ordinance Changes**

- Action C-4.* Commercial moorings in the Warren River will be limited to 10% of moorings in each field. Field number 1 in which commercial moorings exceed 10% will be reduced to a 10% level over time as commercial mooring permits are retired.
- Action C-5.* No commercial moorings will be allowed in the Kickemuit River due to restrictions relating to its water quality status.
- Action C-6.* To ensure that recreational boaters have access to moorings at a reasonable cost, new commercial mooring permits will be issued for any valid commercial purpose as determined by the Harbormaster except that no new commercial mooring permits will be issued for the purpose of seasonal rental to individuals. Existing permits for commercial moorings rented out by registered businesses will be reviewed. Permits for commercial moorings rented by individual persons will not be renewed.

## **D. RECREATION**

### **Issue:**

Along with increased boating activities requiring moorings, all other recreational use of Warren's water resources have increased as well, generating some competition for the use of the water. At issue is the need to ensure a balance between all demands on water resources, including all forms of recreational use.

## **Discussion:**

Recreational competition has emerged only on the Warren and Kickemuit Rivers.

As the Warren River has long been commercialized and the water quality less than optimal, recreational use is largely limited to boating. The main requirement has been to ensure that recreational moorings and boating activities do not conflict with commercial uses. One area of the river has been traditionally used for dinghy sailing, primarily by a local Yacht Club. One of the mooring fields to be activated as part of this Harbor Management Plan revision will intrude on this sailing area (also used as a short cut for vessels leaving and returning to Warren and Barrington Harbors). In discussions between Warren and Barrington Town Officials (where the Yacht Club is located), it has been agreed that the Warren Harbormaster will locate moorings in this field in such a manner as to minimize any impact on dinghy sailing programs.

The situation on the Kickemuit River is more complex as this is a beautiful site with excellent water that has long been used for a range of recreational activities including swimming, fishing, shell-fishing, canoeing, kayaking, sailing, bird watching, water-skiing, and mooring of recreational vessels. Expansion of mooring fields has impacted on swimming activities. General growth in boating activities has required introduction of marked no-wake zones and other restrictions. To protect both people and the environment. The introduction of personal watercraft with their unusual characteristics has introduced a range of concerns, particularly safety and noise pollution.

## **Recommended Policy:**

Management of the Warren River shall take into consideration the needs of all recreational and commercial users in a manner that maximizes the net social and economic benefit of the river for all its citizens. Management of the Kickemuit River will take into consideration the needs and concerns of the disparate groups of users to establish management policies and procedures that are fair in balancing competing demands, protective of the environment and equitable in implementation.

## **Recommended Actions:**

***Action D-1.***                    Warren River -        As there are limited locations where recreational moorings are feasible and as there are other locations where dinghy sailing is possible, mooring requirements should take precedence over sailing, provided that every effort is made to minimize the impact of moorings on sailing.

***Action D-2.***                    Kickemuit River -    The Narrows, the upper end of the navigable area, conservation areas and all Mooring Fields should be conspicuously marked with no-wake buoys to allow strict enforcement of no-wake regulations.



Mooring fields should be laid out to allow a buffer zone between mooring fields and the shore to permit swimming activities.

Appropriate pump-out restrictions should be ordinances and strictly enforced to protect water quality.

Sufficient resources should be made available to the Harbormaster to properly enforce ordinances applying to the Kickemuit. Discussions should be held with the Town of Bristol toward the objective of cooperative enforcement activities to reduce costs. Cooperative arrangements with the Warren Fire Department should be explored.

The town should study the impact of personal watercraft use on other uses of the river and the environment to determine how any identified negative impact can be ameliorated. Experiences of other towns in dealing with the impact of this new type of watercraft should be reviewed as part of the process.

## **E. PUBLIC ACCESS**

### **Issue:**

Existing public access areas have not been enforced, and as a result, many rights-of-way have succumbed to privatization by neighboring private landowners. Additionally, many public access areas are not marked nor do they provide adequate public parking, trash barrels or maintenance.

### **Discussion:**

The Town of Warren is committed to preserving, protecting, and where possible, establishing public access to the water. However, as the Town of Warren grows and coastal development increases, public access opportunities will become increasingly more difficult to find.

There are several different types of public access to the shore. Pedestrian access typically includes those areas, which merely offer a footpath, and no vehicular parking, to the shore. The neighboring community most commonly uses this type of access. Visual access simply means that a water view is possible (such as at various locations along the East Bay Bicycle Path) but direct access to the shore is not possible. Another category of public access includes boating and/or fishing access. This type would most likely include a boat ramp and possibly parking for cars and trailers. An excellent example of this type is the Community Dock Facility. The best type of access for use by the general public is those, which provide plenty of parking and possibly trash and sanitation facilities. These are typically found at federal, state and municipal parks.

Continued growth of the town may result in more people seeking to use the rivers of the town. Without establishing additional ROWs, existing ROWs will become quite crowded. The lack of parking at all of the ROWs in town can only serve as another source of conflict between those using the ROW and the neighborhoods in which they are found.

The condition of many of the ROWs could be improved. Many are overgrown with weeds, brush, and in some cases, trees. A few have been altered or disguised by abutting property owners in such a way as to make them either difficult or impossible to find or use. Many are unmarked, poorly marked or posted with NO TRESPASSING signs. These abuses must be addressed whether by simple maintenance, by removal of illegal signs or by offending property owners being forced to return the use of the ROW to the people of the Town and State.

In some areas where traditional but unrecognized ROWs currently exist, these ROWs should be legally declared so that they will not be lost to the future residents of the Town. The north end of Kelley Street on Belcher Cove on the Palmer River is an example. All of the streets on the Town maps that are shown as dead ends at the water are to be included in this category.

The construction of the East Bay Bicycle Path and the rebuilding of the railroad trestle are both a blessing and a curse. The obvious blessing is the use of the path as it is now impassable in some places and strewn with trash in others. The problem is that in those places where the path is in close proximity to the river it is used for parking. This parking will be lost without the Town's intervention. The parking on Locust Terrace as an entry point for those seeking to reach Hanley's Point is an example.

The Town of Warren has entered into an agreement with the RIDEM to participate in the statewide shoreline Access Program. Identification signs will be placed at the Town Dock, Maple Street, Patterson Avenue, and Shore Drive/Chace Avenue ROW's. In addition, grants have been received by the Town to upgrade the Shore Drive/Chace Avenue site. In the future, if monies become available, these sites will receive priority attention.

The goals of the Town are to 1) protect and maintain existing public ROWs, 2) upgrade public ROWs around the Kickemuit to allow for emergency rescue access, 3) improve public parking conditions where possible, 4) identify and develop new rights of way when ever possible.

## **E.1 Rights of Way**

### **E.1.1 Discovery and Designation**

#### **E.1.1.1 Policies:**

- a) It shall be the policy of the Town of Warren to undertake the discovery and designation of traditional and existing public Rights of Way to the shore through any legal methods and approaches available to it.

- b) It shall also be the policy of the Warren Town Council to require that all new waterfront development projects provide public access and adequate public parking.
- c) It shall include the policy of the Town of Warren to provide an updated and maintained “ROW” location map of the designated right of ways to the general public.

**E 1.1.2 Recommended Actions:**

- a) A designated committee be formed between the Harbor and the Conservation commissions and this “Right of Way Committee”, to investigate and report to the Town Council on the process for dedication of lands used as traditional access ways to the shore as “Highways by User” under Chapter 24-2-1 GL RI, and the application of this to creating public access to the shore;
- b) That appropriate street ends, which end at or near the shore, be investigated by the Town to establish their legal status as public ROWs, and further, that they be made accessible and usable to the public;
- c) That appropriate street ends or public highways are nominated to the CRMC for recognition and designation as CRMC public ROWs (see Appendix E).

**E 1.2 Enforcement**

**E 1.2.1 Policies:**

- a) It shall be the policy of the Town of Warren that all designated public Rights of Way to the shore must be kept open and clear for the use of the public.
- b) It shall be the policy of the Town of Warren to pursue all avenues available to prevent or remedy the unlawful posting or blocking of any public Right of Way.
- c) It shall be the policy of the Town to further enlists the aid of the State in pursuing these policies.

**E 1.2.2 Recommended Actions:**

- a)
  - 1. A plan be incorporated, possibly the formation of a Right of Way Committee, that will develop and maintain all public rights of way to the shore in Warren and that includes a procedure for securing funding from the state Department of Environmental Management’s Shoreline Access Improvement Program strictly for the improvement and development of public rights of way;
  - 2. The Warren Department of Public Works be directed to implement this plan;
  - 3. Contact be made with the state Department of Environmental Management’s Shoreline Access Program to mark these access sites;
  - 4. Funding for the continued maintenance of these public rights of way is incorporated.

b) The following public access areas need enforcement action:

Maple Street (R-1) Between Plat 15C Lot 1 and Plat 7 Lot 1 both being residential dwellings. A small asphalt/gravel ramp that extends west from the west end of Maple Street to a cobble beach bordering the Warren River best accessed at high tide. With a worn sign designating as a public right of way. At pole #8. (Beach Terrace) N41.43.031/W71.17.073.

Parker Avenue (R-2) Between Plat 13E Lots 130 and 27 clearly shown as a dead end street extending to the Kickemuit River. Parcels of land overgrown with brush with a walking path. Large storm drain (pipe) and a stony stream (drain bed). A guardrail separates the street from the lot. N41.43.305/W71.15.764.

Patterson Ave. (R-3) Between Plat 13D Lots 31 and 32 clearly shows as a dead end street extending to the Kickemuit River. A parcel of land covered with brush and marsh grass that extends east from the east end of Patterson Avenue to a wetland area. At pole #10. Just north of Laurel Park. N41.43.244/W71.15.742.

Harris Avenue (R-4) Plat 13E between Lots 118 and 119, both residential. A dead end street, paved with a low sea wall and a closure line relative to shell fishing, which coincides with the north side of the street. N41.42.920/W71.15.558

Shore Drive 3 (R-6) Plat 17, between Lots 118 and 119. An area of broken pavement and brush that extends west from the intersection of Shore Drive and Chase Avenue to a cobble beach bordering the Kickemuit River. At pole #12 (Touissett). N41.42.648/W71.14.525

Shore Drive 5 (R-7) Plat 17, between Lots 128 and 129. Limited parking and difficult to distinguish. N41.42.589/W71.14.496

Shore Drive 6 (R-8) Plat 17, between Lots 134 and 135. Limited parking and difficult to distinguish. N41.42.535/W71.14.487

Shore Drive 7 (R-9) Plat 17, between Lots 140 and 141. Limited parking and difficult to distinguish. N41.42.453/W71.14.463

The Town Landing (R-10) (Touissett Road) Plat 16, between Lots 259 and 27. No trespassing sign, very limited parking. N41.42.054/W71.14.530

### **E.1.3 Development and Maintenance**

**E.1.3.1 Policy:** It shall be the policy of the Town of Warren that all established public rights-of-way to the shore, designated by CRMC and accepted by the Town, be developed and maintained as unobstructed access points that further ensure and enhance the viability of shore side access to the waters of the Town of Warren.

**E.1.3.2. Recommended Actions:**

1. A plan be incorporated that will develop and maintain all public rights of way to the shore in Warren and that includes a procedure for securing funding from the state Department of Environmental Management's Shoreline Access Improvement Program strictly for the improvement and development of public rights of way (see agreement in Appendix C);
2. The Warren Department of Public Works be directed to implement this plan;
3. Contact be made to the state Department of Environmental Management's Shoreline Access Program to mark these designated access sites;
4. Funding for the continued maintenance of these public rights of way is incorporated.

**E.1.4. Access Development**

**E.1.4.1 Existing Sites**

**Policy:** It shall be the policy of the Town of Warren to preserve appropriate existing shoreline access sites and provide for their upkeep and maintenance.

**Recommended Actions:**

- a) The Warren Harbor Management Commission recommends that the Town Council and the state Department of Environmental Management take all necessary steps to ensure the preservation of all existing shoreline access points as outlined above.

**E.1.4.2 Future Development**

**Policy:** It shall be the policy of the Town of Warren to undertake the identification of potential shoreline access sites and to provide for the preservation and maintenance of each as such.

**Recommended Actions:**

- a) The Warren Harbor Commission recommends that the Town Council assist the state Department of Environmental Management and the Coastal Resources Management Council in the identification of potential shoreline access sites and also petition the DEM for funds for the improvement and/or purchase of these sites once designated.
- b) Specific sites which should be considered for future development and/or purchase include:
  - 1 **Company Street** – Visual, dead ends to Warren River, parking on both sides of street and on Westminster Street. Recent upgrade and new low wall, a bench and a small grassy area. Old sign designates this as a Public Right of Way. Plat 2 on the north side is, Lot 125, a residential home and

on the south side is, Lot 30, a commercial structure and boatyard (Ginalski Marine).

2. **Crescent Street** –Visual, limited parking. Plat 1, at the intersection with Mill Street, between Lots 5 and 43. An area near the East Bay Bicycle Path, this would allow fishermen to access the East Bay Bicycle Bridge and Warren River without inconvenience to adjacent neighbors.
3. **Locust Terrace** – Visual, limited parking/should be improved, near town property, a prime location for visitors to Hanley’s Point. Plat 15C, between Lots 28 and 15.
4. **Barker Avenue** – (Broken Bridge) Plat 13B, between lots 82 and 96. Visual, Limited parking, CRMC recognized, Historical Massasoit Spring, Kidde Lot (playground). Shows River Street traveling 279 ft. to the waterfront.
5. **Maple Road** – Plat 16, between Lots 344 and 345. Limited parking, beach, dirt road dead-ends at waterfront (Mt. Hope Bay / Coles River).
6. **Sunset Court** – (Asylum Road) Plat 16, between Lots 307 and 67. Visual, abuts marsh, nearby limited parking.
7. **Libby Lane** – Plat Visual, abuts marsh, nearby limited parking.
8. **Blackthorne Lane** – Plat 16, between Lots 329 and 330. Visual, abuts marsh, limited parking.
9. **Brownell Street** – (Cedar Street extension) Plat 16, between lots 180 and 181, 176 ft. leading to waterfront. CRMC recognized, limited parking, marked private.
10. **Shore Drive** – (exts: Prospect, Highland, and Pleasant View) Plat17, no parking and not easily distinguishable. The Chase Avenue location the launch ramp is in poor condition and needs repair.
11. **Laurel Lane** – Plat 13d, between lots 338 and 342, clearing shown to the Kickemuit River, limited parking, marked private, Laurel Lane Association controls access.
12. **Clark Road** – Plat 13E, between Lots 314 and 310. No parking dead-ends at waterfront.
13. **Beach Street** – Plat 7, between Lots 119 and 41. Street dead-ends at waterfront, beach, limited parking and a low seawall at the end of the street.

14. **The Town Commercial Docking Facility** – (Extension of Wheaton Street) Plat 5, Lot 74. Includes a concrete launch ramp, two timber-framed docks (one with finger piers) with a total capacity of twenty-five boats for commercial fisherman and an adjacent parking lot capable of holding twenty-five vehicles. Off Water Street behind the sewer treatment plant and next to the main pump out facility.
15. **Washington Street** – Clearly shows on Town Plat Maps as extending to the Warren River. This extension also provides access and serves as a driveway for the adjacent business (Warren Boat Works). On the north side is a residential home (Plat 4, Lots 112 & 113) and on the south side is a commercial structure (Plat 5, Lot 1).
16. **Wharf Tavern** – Plat 4 Lot 1. Visual, Limited Street parking on Miller Street and Water Street, the Wharf Tavern parking lot is private. Public walkway on boardwalk from the end of Miller Street around outer perimeter of restaurant (river side). This is not listed on CRMC listing/progress report as amended June 2001 this location should be added and designated. The sign, which is posted reads: “This Public Access is Being Provided by the Coastal Resources Management Council in Cooperation with the Owners. Public Access is permitted from 7 am to 10 pm Subject to Local Ordinances and Laws. For Further Information Call CRMC at 266-2476.”
17. **Miller Street (Extension)** – Visual, Street dead-ends to Warren River. Between Plat 4, Lot 1 and Plat 2 Lot 41. Limited street parking including angle parking for five vehicles. Limited view of Warren River due to the adjacent commercial buildings, Wharf Tavern, Lot 1, to the south and Dyer Boats, Lot 41, to the north side.
18. **Riverview St. and Barker Ave.** – Limited parking, leading to the Kickemuit River. Recent development of the Riverview Plat resulted in the town gaining additional deeded land at this location, Plat 13B Lots 86 and 87, but also impaired parking and access due to a fence (enclosing drainage retention pond) and pond outlet pipe. Town map clearly shows Riverview Street extending to the river between Lot 85 (town owned) and Lot 86.
19. **The Old Harbor Marine** – Plat 4, Lot 96. This is a 48,570 square foot area with over 400 foot of waterfront, recently available and purchased by the Town of Warren on March 15, 2003. This is due to a grant made available, by the Rhode Island Department of Transportation, for a Ferry Dock and providing an easement for public access and donations by local citizens, The Warren Waterfront Committee and business professionals. The potential for this location is great as it has several buildings and

dockage including three main docks with ten finger piers. The town also has plans for a new Harbor Masters Office and a boardwalk around the parameter that will extend as far as Baker Street.

20. **Baker Street** (Extension) – Visual, Plat 4, between Lots 139 and 4. Dead ends to Warren River and limited parking. The Town of Warren has received a grant in 2002 and is presently working to improve this area. The Town also plans on a connecting walkway to the new access and ferry point as stated above (Harbor Marine). Recently upgraded at the end by the town with a rebuilt wall and brick area. On the south side is a commercial structure / waterfront business (Boatyard). This area would be suitable for an extensive site with additional parking, a picnic area and a launch.

## **F. WATER QUALITY**

### **Issue:**

There is concern about the present and future water quality and use of the Palmer, Kickemuit and Warren Rivers. Industrial use, increased development, point discharges such as that from the sewage treatment plant, non-point source pollution and recreational boating all have detrimental effects on the water quality of the rivers.

### **Discussion:**

Warren is committed to the preservation and upgrading of her waterways. Water quality is a particularly important issue in Warren because of the number of water dependent activities such as commercial fishing, quahogging, clamming and swimming. The numerous wetlands surrounding the perimeter of much of the Warren, Palmer and Kickemuit Rivers provide a very delicate ecosystem. Wetlands provide spawning habitats for many fish species caught in Narragansett Bay. The water quality of the rivers must be maintained and, when possible, improved for the survival of the species within this system. Town has won a grant for the development of a fish ladder in the Kickemuit River.

The DEM Division of Water Resources into three categories has classified the waters of the Town: SA, SB and SC (see “Water Quality” section in the Harbor Description section and Map #4). The water quality of the Warren, Palmer and Kickemuit Rivers is affected by a number of factors ranging from indirect sources such as non-point source pollution to direct means from the sewage treatment plant. Mount Hope and Narragansett Bays are affected by and affect the rivers’ water quality, which in turn affects Rhode Island coastal fisheries. Water pollution is the number one reason for poor water quality; Warren must examine the sources of water quality degradation and take active steps towards its mitigation.



Non-point sources of pollution include storm water runoff. Storm drains discharge into all three of the rivers. In the event of a storm, storm water carries everything in its path, such as road salt, used oils and other products from the roads, sidewalks and parking lots to the rivers. Other sources of runoff material include lawn care products such as fertilizers, pesticides, herbicides and fungicides. These materials runoff into the rivers and are toxic to all marine life.

Another source of water pollution includes sewage, sewage treatment, and leaching individual sewage disposal systems (ISDS). In the past, the Warren Sewage Treatment facility has received “good” ratings from DEM and Save the Bay (*Save the Bay, “The Good, the Bad and the Ugly”*) Warren’s Town Beach is in such close proximity to the sewage treatment plant that a tertiary plant is recommended to protect this natural resource. Long range planning for the sewage treatment plant should include the consideration of expansion and upgrading to a tertiary plant.

In terms of point source inputs to the Warren River, both Blount Seafood and the Sewage Treatment Plant are permitted by the DEM for discharge of water into the river (Manning, pers com). Blount is permitted for 125,000 gallons per day (GPD) for non-contact cooking water and 250,000 GPD of process water. The Sewage Treatment Plant is permitted at 2.48 million gallons per day discharge. Any other point discharges within the jurisdictional boundaries of Warren should be identified monitored and subject to the same conditions as the Warren Sewage Treatment Plant.

The land areas around Warren’s water areas, particularly around the “SA” waters, are becoming more populated as coastal development increases. There is concern regarding the fragility of the Palmer and Kickemuit Rivers and the poor effect new development could have on its ecology. CRMC rules and regulations need to be rigorously enforced. Also the type 2 water classification of the Kickemuit River should be continued with the corresponding regulations enforced and upheld and some parts should be considered for change to Type 1 conservation area. As development continues, pollutants will increasingly threaten the water quality of the rivers. The pollutants will include not only bacterial contaminants, but also other contaminants including plastics, floatable and debris. Other sources include failing ISDS from homes, which already exist along the shores. Coastal wetlands are important for a variety of reasons. They provide food and shelter for large populations of juvenile fish and are nurseries for several species of fish.

Coastal wetlands include salt marshes and freshwater or brackish wetlands contiguous to salt marshes. Areas of open water within coastal wetlands are considered a part of the wetland. The mud flats and creeks associated with many coastal wetlands are rich in shellfish, particularly soft-shelled clams. Coastal wetlands are effective in slowing erosion along protected shores.

Land uses and activities abutting coastal wetlands may have a strong impact upon the wetland itself. Nearby drainage patterns that affect sedimentation processes and the salinity of waters may easily be altered, with detrimental effects. Wildlife must be

protected from harassment. Bulk heading and filling along the inland perimeter of a marsh prevents inland migration of wetland vegetation as sea level rises.

Boating activity may contribute to the degradation of water quality. Individual boaters fail to realize that the cumulative impacts of boating can cause serious problems. Boating problems range from the spilling of gas and oil when fueling to littering garbage, cleaning out bilges, and pumping out heads into the rivers. Indirect sources of pollution come from the TBTs associated with boat bottom anti-fouling paint, the potential leaching of underground fuel tanks at marinas, septic tank cleaners, and creosote from pilings. When combined, the numerous different sources of water pollution, and the intensity with which the boating activity exists during the three month season, can add up to considerable water quality degradation.

The goal of the Warren Harbor Management Plan is to not only identify the numerous issues associated with water quality problems in the water areas of Warren, but to work towards the improvement of water quality conditions by adopting policies and programs to address, within the limitations of municipal jurisdiction, pollution generated by point source and non-point source pollution, boating activities, shore side development and other land use activities.

There are many factors that affect the water quality of these waters. Consideration must be given to all of them when establishing policies and action plans for achieving the stated goal.

**Recommended Policies:**

- Policy F-1.*** To support all public educational opportunities pertinent to the preservation and protection of the ecology of Warren's rivers.
- Policy F-2.*** To support the inventory, assessment, monitoring, and review of the impacts to water quality caused by existing and proposed storm drains and treatment plant's point discharges.
- Policy F-3.*** To comply with DEM regulations and to limit vessel concentrations to preserve the presently designated DEM water quality standards.
- Policy F-4.*** To undertake the designation and acquisition of open space and conservation areas bordering the three Warren Rivers and Mount Hope Bay, working in cooperation with the Warren Land Conservation Trust, to aid in the preservation of current water quality conditions. These areas may also be seen as a first step towards improving water quality conditions in Warren.
- Policy F-5.*** To protect the ability of the wetlands to perform their natural function.

## **Recommended Actions:**

- Action F-1.*** The Town's agencies and authorities shall develop public educational materials and programs to educate waterfront property owners, boaters and summer visitors of the dangers of water pollution by cleaning agents containing phosphates, lawn fertilizers, failing ISDS and other non-point sources of pollution. In addition to property owners or visitors, an educational curriculum should be developed for use in the school systems.
- Action F-2.*** Land uses around the rivers shall continue to be inspected for potential sources of pollution. Marinas, recreational areas and waterfront businesses will appropriately dispose of lubricants, paints and litter, boat sewage and other contaminants. The Warren Department of Public Works has provided for disposal of hazardous waste at its facility. The result of a grant, as of 2002, all non-performing ISDS systems within reach of the Warren municipal sewer line have been identified and tied into it. This is a particularly substantial benefit to the Kickemuit River where the entire west bank of the river has access to Warren municipal sewer. Moreover, Rhode Island Division of Water Resources Estuarine Water Quality Monitoring Results indicate significant improvement in water quality in the Kickemuit River over the last twelve years. The Warren Harbor Management Plan urges that monitoring continue in all of its tidal waters.
- Action F-3.*** The Harbor Management Ordinance prohibits the discharge of any untreated wastes from vessels within the tidal waters of Warren. The town of Warren maintains a pump-out boat that services Warren, Barrington, and part of Bristol. Because of the unusual geography of the three towns, we have coordinated with town of Bristol in order to provide this service to all boaters in our tidal waters and harbors. We plan to implement a disposal line from the bulkhead at the sewerage treatment plant to the end of the dock. This would allow deeper draft boats to dispose of sewer waste dockside as well as through the mobile pump out boat. This additional service, while increasing efficiency and convenience, can only encourage compliance.
- Action F-4.*** The Town will regulate moorings within Warren's water areas consistent with the water quality policies of this section and regulate the number of permits accordingly. Warren has completed the survey of all moorings, legal and illegal, and has given notice of violation of mooring ordinances where necessary. The harbormaster has also documented all moorings by GPS coordinates, providing satellite photographic records for our database. Included in this documentation is the identification of each boat for each mooring, its size, the size of its tackle and other pertinent data to ensure accurate, safe, and environmentally compatible mooring field management. The current mooring plan complies with all CRMC Harbor Management Guidelines. Now that moorings and mooring fields have

been designated, the town, with the counsel of CRMC, will determine appropriate numbers of moorings for the different areas and continue to regulate them in a manner consistent with this plan, CRMC guidelines, and the regulations set forth by DEM.

***Action F-5.***

It is recommended that in conjunction with DEM/NBP standards, policies and recommendations all storm drains be upgraded and storm water management be investigated. A cooperative agreement with the Soil Conservation Service to review standards for storm water and erosion control should be used to develop the standards for a runoff ordinance with standards for storm water. The town of Warren has installed two high-capacity vortex drain catches, one on Bay Road, and the other on Patterson Avenue. They are designed to inhibit the runoff of storm sewerage into the Kickemuit River directly and positively impacting water quality. Warren is continuing to upgrade its main sewer lines preventing the migration of ground water into the sewer line; these improvements cumulatively improve the efficiency of the Warren Sewerage Treatment Facility by restricting the volume of water the plant must treat.

***Action F-6.***

When considering new and/or expansion of existing waterfront development the Town will encourage:

1. Prohibit the use of asphalt as pavement for parking lots, sidewalks and waterfront roads, instead requiring the use of crushed shells, gravel or stone;
2. Require a naturally vegetated buffer zone in accordance with the CRMC assent for that site;
3. Require public access to the waterfront; The Warren Harbor Commission has documented all CRMC Rights of Way, and potential future rights of way. They have been listed on our website, and we are implementing a plan to have the rights of way duly marked with appropriate signage.
4. Require new development (commercial and residential) to use water saving plumbing features;
5. Require mandatory tie-in to municipal sewer system tie-in wherever possible - this has already been completed wherever town sewer is available.
6. Require the building inspector to follow through on applications with increased ISDS capacity following new ISDS recommendations.

7. The Town should promote the use of environmentally friendly herbicides; pesticides, fungicides and lawn care chemicals within a mile of any of the rivers. Road salt should be used very lightly on waterfront roads, if possible, using new technology, including mixture with calcium carbonate, to decrease the negative impacts of runoff into the rivers. Warren Department of Public Works is pursuing the appropriation of the technology needed to meet this recommendation.
8. The town will actively pursue the acquisition of open space near the waterfront. The Town of Warren will work with bordering towns for joint acquisition of open space when appropriate. A committee should be formed consisting of members from Warren, Bristol, Barrington and Swansea, Massachusetts to examine and pursue the acquisition of open space. The committee should examine and pursue the acquisition of open space.
9. Develop conservation zones that provide for tax advantages near the waterways;
10. Apply for all open space and farmland federal and state grants;
11. Direct the grant writer to work on all grant proposals for open space;
12. Publicly recognize those individuals that have donated or designated their land for preservation, conservation, historical or agricultural use;

***Action F-7.*** Identify and prioritize all open space areas by the rivers that the Town of Warren may want to purchase prior to November bond issues.

***Action F-8.*** The Town of Warren will enforce all ordinances pertaining to waterfront development.

***Action F-9.*** Any new or expanded in ground fuel storage tanks should be prohibited. Existing underground tanks should be identified and monitored in cooperation with DEM for any leaks. Any existing tanks should be checked annually for leaks.

***Action F-10.*** The existing Harbor and Vessel Code should be amended to allow the Town of Warren to enforce and fine violators of Coast Guard and town

regulations of boat discharges. *(This has been done. The Harbor and Vessel Code has been amended and accepted by the Warren Town Council to designate all mooring areas, rules, and regulations for compliance. )*

**Action F-11.** Warren in conjunction with Bristol should acquire enough oil booms to lay two double lines across the Narrows at the mouth of the Kickemuit. For best access and deployment, oil booms should be housed at the Touissett Fire Station.

**Action F-12.** Complete construction of fish ladder. The town of Warren has received a grant for the design and construction of the fish ladder. The design has been accepted and we are in the process of beginning construction on this fish ladder at the Warren Reservoir on the Kickemuit River.

## **G. THE WARREN WATERFRONT**

### **Issue:**

Warren has recently adopted an ambitious plan for the development of the waterfront on the Warren River in a way that will preserve one of the State's last working waterfronts. Implementation, supported by grant funding, has begun but full implementation of the plan will take a number of years, a continued implementation planning process and significant amounts of money.

### **Discussion**

In 2002 the Town of Warren adopted the "Warren Waterfront Plan" which addresses the historic waterfront district of the Town and includes the area bounded by the area West of Water Street, from the Route 114 Bridge in the north end of town to Bridge Street in the South. The plan was prepared by a Waterfront Committee which drew on the findings of the Waterfront Study prepared by the Urban Design Group. The Plan is included in the Warren Harbor Management Plan as an unattached annex.

The overall objective for the planning activity was to determine how best to preserve one of the State's last working waterfronts. In general, the Plan includes a number of goals that call for Warren's waterfront to be "maintained and anchored by water-dependant uses supplemented by related uses"; "reinforcing the waterfront's historic fabric"; "creating a water oriented civic space for the community"; a river walk running the length of the Harbor; and a number of other physical goals.

As a result of Plan adoption, the Town, with the assistance of The Trust for Public Land and a significant donation from a local industrialist, has already assured that two significant parcels of waterfront land where a private developer had planned to erect condominiums were secured for water-related and water-dependent businesses. Part of one parcel, including a significant amount of waterfront, has been secured for the town as a base for future development, including the waterfront walkway.

**Recommended Policy:**

The preservation and development of Warren's historic working waterfront in a manner that supports water and water-related business, increases public access to the waterfront, and encourages increased public utilization and appreciation of the waterfront shall continue to be a development priority of the Town of Warren.

**Recommended Actions:**

- Action G-1.** The Town should follow in close regard the recommendations and phased implementation as outlined in the Warren Waterfront Plan.
- Action G-2.** The Harbor Management Commission should work in close concert with the Town Planning Board and other boards and commissions in review of project with impact on waterway, wetland protection, public access, etc.

**H. WARREN TOWN WHARF****Issue :**

As part of the acquisition of land under the Warren Waterfront, the Town has received title to a parcel of waterfront land with a deep-water pier and a number of small craft slips. The purpose of acquiring the land was to develop an area of the Warren River waterfront for public access. The challenge now is to develop the site, the "Town Wharf", as part of an integrated plan for development of the entire waterfront, in a manner that allow it to serve as an anchor for the development of public utilization of the waterfront for a range of activities.

**Discussion**

The parcel of land secured by the town to become the Town Wharf, is part of a property known as "Harbor Marine" which was purchased by the Trust for Public land and divided into three parts. The two additional parcels making up the land that was purchased are on either side of the Town land, but are set back from the waterfront itself, making the Town land a rough T shape). In late 2003 these parcels were in the process of being sold by the Trust for Public Land for water-related businesses that will complement the public use that is planned by the Town.

The Town Wharf site includes a slip used as an old dry-dock, which is envisaged as a ferry dock in the future (the justification for an Inter-modal Transportation Grant). It is currently used for dockage for two private trawlers on annual leases. This is expected to continue until such time as ferry activities are considered feasible. Ferry activities being contemplated are inter-modal transport (including stops for north-south ferries and cross bay ferry service) and tour vessels.

The site also contains a deep-water dock that has the potential for use as a dock for large historic sailing vessels on a short or long term basis. It is currently used to anchor floating docks for recreational vessels. The town has applied for a grant to fund the conversion of some of these docks for transient use, which will require additional services. The installation of slips for seasonal recreational rental in the same area behind the waste treatment plant (see Section I below) would assist in the development of this site, including the possibility of making the deep-water dock accessible by large vessels.

The town also plans to locate the Harbormaster's office on the Town Wharf to assist and site management as well get Harbormaster service closer to the water. The Harbormaster boat is also based here.

The land portion of the Town Wharf will not only provide adequate parking for planned maritime activity, but also sufficient open space for a range of events linked to water related activities (e.g. an exhibition tied to the presence of a tall ship), or any public event that would benefit by being able to draw on the attractiveness of a waterfront location. The Trust for Public Land has indicated its intent to sell the adjacent sites to businesses whose operations would complement planned public uses of the Town Wharf.

The Town Wharf will also serve as one of the initial anchors for the planned Waterfront Walkway and will also be linked to the East Bay Bike Path.

### **Recommended Policy:**

The area of waterfront deeded to the Town shall be designated as the Town Wharf and will be utilized for appropriate public purposes such as fairs, festivals and other public activities on the waterfront area; dockage for transient vessels and visiting deep water vessels, a small craft tie up dock for services; a dinghy dock, and recreational boat rental. Existing slips will be used for seasonal rental until demand for transient uses and large vessel transient or permanent dockage is viable.

### **Recommended Actions:**

- Action H-1.*** Development of a specific plan for the Town Wharf based on the Waterfront Plan that maximizes its benefit for the town.
- Action H-2.*** Work with the Trust for Public Land to assure that adjacent parcels are sold to entities planning water dependant commercial activities that are supportive of the plan for the Town Wharf
- Action H-3.*** Actively seek opportunities to attract deep-water vessels such as tall ships, small cruise boats and ferries that will increase the attractiveness and utilization of the site and generate increased revenue.



**Action H-4.** Link development of the Town Wharf with development of the Town Docks (see below) to ensure development of both provides the maximum benefit possible.

**Action H-5.** Work with public agencies to secure funding for the continuing development of the Town Wharf.

## **I. TOWN DOCKS**

### **Issue:**

Dockage for commercial fishermen in Warren does not meet demand. There is a waiting list for slips at the town dock and larger vessels berth where they can find space, sometimes of uncertain continued availability. Demand for recreation slips is also high as reflected by steadily increased seasonal rates. Transient dockage or moorage is non-existent. Both recreational and commercial demand will continue to grow. The Town is already committed to supporting commercial fishermen, but its ability to do so to date has been limited by the lack of capacity to seek available finance for facilities. It also has town waterfront available that can be used to support commercial fisherman and to create recreational space that can be used to finance waterfront development.

### **Discussion:**

Warren currently has three public docks; two are commercial and one is recreational.

One commercial dock, built with grant funds, has been recently restored and is fully utilized. Slips are leased by the Harbormaster from a waiting list. While Warren residents are given first priority, non-residents hold many slips. The second is an old dock currently managed by slip holders under an informal agreement. While the Town pays insurance for the dock, it does not manage or maintain it, and the dock is not in good condition. The Town has no permanent public docking facilities for larger commercial fishing vessels such as Trawlers.

The Town Wharf mentioned in the previous section has a number of recreational slips. All are currently leased annually as there are insufficient services to permit transient dockage. Two commercial trawlers temporarily occupy docking space that is designated for a Ferry Slip.

### **Recommended Policy:**

It shall be the policy of the town of Warren to protect, preserve and where possible develop the commercial fishing resources of the town; develop transient slips, particularly at the Town Wharf, as part of its waterfront development program; and increase the availability of seasonally recreational slips, both as a service to boaters and as a source of funding of harbor management and development activities.

## **Recommended Actions:**

- Action I.1** The commercial dock not now managed by the Harbormaster should be placed under the Harbormaster's control and the town should seek funding to require upgrading of the dock to an acceptable level commensurate with its use.
- Action I.2** Development of structures and services at the Town Wharf will continue to permit opening the slips to transient boaters, both large and small.
- Action I.3** Dinghy docks will be installed at the Town Wharf to service transient moorings now being installed.
- Action I.4** Land services for the deep-water slip planned for a ferry landing shall be installed.
- Action I.5** The Town owned land in front of the waste treatment plant where the two commercial docks are located is suitable for further development of docks with some dredging. Plans for such development already exist. Dockage and wharfage should be expanded to accommodate various demands including:
- Dockage for Trawlers currently berthed at locations in Warren that is not secure (including the Town Wharf)
  - Dockage for additional shell fishing vessels
  - Wharfage for commercial fishermen
  - Additional seasonal recreational slips, including accommodation for vessels now at the Town Wharf to allow for transient dockage and use of the deep water dock for large vessels.
  - The inadequate launching ramp at the location (which is the only public launch slip in Warren) needs to be improved to an acceptable level.
  - Additional supportive services and parking need be installed
  - The feasibility of including transient docking in this working waterfront area should be studied.

## **J. CONSERVATION AND PUBLIC UTILIZATION OF COASTAL RESOURCES**

### **Issue:**

Numerous agencies, public and private, local, state and federal, have focused increased attention on protection and development of Warren's water and water-related resources. This has created the opportunity for synergistic cooperation amongst these organizations to both increase the effectiveness of these initiatives as well as increasing the public's utilization of our natural resources.

**Discussion:**

A few illustrative examples demonstrate this opportunity:

- A significant amount of the Town's coastal resources have been protected through private and public purchase. Access to these resources by land is of necessity limited. Access by water is a possibility that has not been explored to date. An initiative to provide and publicize access by low-impact watercraft such as kayaks and canoes would increase appreciation of these resources without endangering them and thereby increase support for future protection activities.
- Warren is only one of a number of Narragansett Bay towns that have secured waterfront facilities that permit access to the town by ferryboat. Warren's facility was purchased through an inter-modal transportation grant designed to enable the establishment of such facilities. What is needed now is coordinated action to development water linkages between these towns.
- The Coastal Resources Management Council is concerned about maritime resources below the high tide mark in Warren as it is in all towns. Given Warren's extensive coastline, a number of local organizations have taken action based on similar concerns. Lack of full awareness of the goals and objectives of the different organizations has led to misunderstandings and unnecessary friction between groups with shared objectives.

**Recommended Policy:**

Warren will encourage increased communication and cooperation between public and private groups working to preserve water-related natural resources in Warren to increase the overall impact of such efforts and increase the responsible utilization of maritime resources for the benefit of the people of Warren and Rhode Island.

**Recommended Actions:**

Direct the Harbor Management Commission to serve as a focal point for communication and commence the process of identifying the organizations active in the conservation and development of Warren's water-related resources, and encourage the development of activities that will take advantage of increased cooperation and mutual support.

**K. FINANCE****Issue:**

The cost of financing harbor management and development has increased markedly in the past two years, and will continue to increase. While funding for many of the actions proposed in this plan will be available on a (usually) competitive grant basis, funding requirements of the Town

will increase for recurrent cost associated with development and for matching grant funding of capital grants.

### **Discussion**

Financing of recurrent and minor capital costs for the management development of Warren's Harbor has traditionally come from the Town's general fund. Until 2003, fees for recreational and commercial mooring permits did not fully offset them. Capital costs, such as the construction of the commercial fishing pier and its recent major repair have been funded from State and Federal Grants. Commencing in 2003, a program of increased fees was established to bring receipts in line with expenditure.

With the implementation of the Waterfront Development Plan and the acquisition of the Town Wharf, this situation changed. In the short term, the ability to rent out existing but not fully developed slips at the Town Wharf has resulted in a positive cash flow from waterfront activities, but future development will add additional costs, both capital and recurrent. Increased management is already overtaking current staff and will increase. Although expected and planned capital costs can largely be offset by grants, most will require some local contribution. Some of the significant required and potential capital expenditures are summarized below:

#### ***Town Wharf***

- "Brownfield" alleviation due to its prior use as a coal depot.
- Overall site development, including relocation and reinforcement of dockage, and development of supportive facilities for seasonal and transient recreational boats and to permit use of the existing deep water dock now partially blocked by floating slips; facilities required for use of the ferry landing site, and creation of parking and landscaping to complete renovation of the site for public use.
- Establishment of a Harbormaster office.
- Construction of the portion of the Waterfront Walkway the site at the site.
- Commercial/Recreational Dock Site
- Rehabilitation and upgrading of boat ramp
- Rehabilitation of existing shell fishermen dock
- Construction of Wharf for Trawlers and Lobster Boats, etc.
- Construction of slips for small commercial fishing and recreational boats.
- Overall development of site and services.

### ***Other Areas in the Waterfront area***

Additional parcels of waterfront land on the currently underutilized Narragansett Electric access to and parking for the waterfront walkway, which would begin at that site. Such it become available to the town, at least some development capital funding would be required.

### ***Waterfront Walkway***

Long term plans call for a walkway along the entire waterfront from the Route 114 Bridge to the Town Beach, which ends at Bridge Street. Construction at could begin at any time, subject to funding availability, at three sites; Town land where the commercial docks are located, the Town Wharf, and what is called the “Eastern Yachts” site where property was sold by the Trust for Public land with an easement for a walkway and access road.

### ***Other Water Resources***

Some capital may also be required for the acquisition and development of access sites and other water resource development or conservation.

## **Recommended Policies:**

***Policy K-1.*** It is recommended that the Town, through the office of the Town Planner, with the support of the Harbor Commission and the Harbormaster, aggressively seek Federal, State and Private funding available for the development of waterfronts, multi-modal transport, water use and historic districts to continue the development of the sites mentioned above and other areas of Warren’s Waterfront.

***Policy K-2.*** It is recommended that funds generated by permit allocation, rental of slips, transient moorings and other fees be set aside to provide both recurrent and capital funding (primarily for matching grant funds) to ensure that adequate funding is available for development at a rate that will not put an inappropriate burden on Warren’s taxpayers.

## **Recommended Action:**

**An Illustrative Budget is attached:** *To be submitted in September*

## **APPENDICES**

## APPENDIX A

### ACRONYMS

**Army Corps of Engineers (ACE)** – has permitting authority over all dredging and dock constructions.

**Coastal Resources Center (CRC)** – affiliated with the University of Rhode Island, School of Oceanography, and CRC provides technical assistance to municipalities developing their Harbor Management Plan.

**Coastal Resources Management Council (CRMC)** – is the state’s primary agency for planning and management of coastal resources and the uses made of tidal waters.

**Coastal Resources Management Plan (CRMP)** – is the management plan for the state including such coastal resources as the tidal waters, shoreline, and fish and shellfish resources.

**Department of Environmental Management (DEM)** – has primary responsibility within the state for implementing the requirements of the Federal Clean Water Act, for managing the living resources of the state’s waters, and for overseeing federal and state land acquisition and open space programs.

**Environmental Protection Agency (EPA)** – is a federal agency responsible for setting water quality criteria and approving all discharges within all states’ waters.

**Food and Drug Administration (FDA)** – has the responsibilities of water quality and (fish) food quality nationwide. FDA establishes the water quality classification criteria followed by DEM Water Resources in deciding safe shellfishery water quality standards.

**Federal Emergency Management Agency (FEMA)** – has the responsibility of establishing coastal areas subject to flooding, and extreme wave and fetch velocities during hazardous storms.

**Harbor Management Plan (HMP)** – is a municipal management program that guides the implementation of policies and programs outlining goals for the development of the tidal waters adjacent to a municipality.

**Narragansett Bay Project (NBP)** – the Narragansett Bay Project (NBP) was created to administer a comprehensive study of Narragansett Bay. The NBP is a five-year project jointly sponsored by the EPA, and the Rhode Island Department of Environmental Management. Through a team effort involving state and federal agencies, the academic community and local special interest groups, NBP is developing a master plan that will ensure an acceptable and sustainable level of environmental quality for Narragansett Bay.

## **APPENDIX B**

### **DEFINITIONS**

**ABODE** – shall mean the principal, non-water dependent use of a structure or vessel as a dwelling or home.

**ANCHORING** – shall mean to secure a vessel temporarily to the bottom of a waterbody by dropping an anchor or anchors or other ground tackle from a vessel.

**CHANNEL** – shall mean any water areas reserved for unobstructed movement of vessels.

**COMMERCIAL MOORING** – shall mean the rental or lease of a mooring or the use of a mooring to conduct business.

**FAIRWAY** – shall mean any locally designated and/or maintained water areas reserved for unobstructed movement of vessels

**HARBORMASTER** – shall refer to that person appointed by the Town Council.

**LAUNCHING RAMP** – shall mean any manmade or natural facility used for the launching and retrieval of boats. (§ 300.4 RI Coastal Resources Management Program)

**MARINA** – includes any dock, pier, wharf, float, floating businesses, or combination of such facilities that service five or more recreational boats as commercial enterprise or in association with a club. (§300.4 RI Coastal Resources Management Program)

**MEAN HIGH WATER (MHW)** – the average height of the high waters over a 19-year period.

**MOOR** – shall mean to permanently secure a vessel to the bottom of a water body by the use of mooring tackle.

**MOORING** – shall refer to that location duly permitted by the Town of Warren and registered to the applicant.

**MOORING TACKLE** – shall mean the hardware used to secure a vessel at a mooring and which is kept in place seasonally.

**NON-RESIDENT** – shall mean any individual, business, or corporation that does not meet the definition of “resident”.

**NONWATER DEPENDENT USE** – refers to those activities, which are not dependent upon the waterfront for continued use. (E.g. restaurants, residential development)

**NONWATER RELATED USE** – refers to those activities that are in no way dependent upon or related to the waterfront for its use.



**PERSON** – shall include individuals, corporations, societies, associations, and partnerships.

**QUALIFIED INSPECTOR** – shall mean any person or business approved as an inspector of tackle by the mooring assignment committee.

**RECREATIONAL BOATING FACILITY** – includes marinas, launching ramps, residential boating facilities, recreational wharves, piers and slips, floats or floating docks, and recreational mooring areas. (§ 300.4 RI Coastal Resources Management Program)

**RESIDENT** – shall refer to any full-time inhabitant, taxpayer or non-profit organization of the Town of Warren.

**RIGHT OF WAY** – shall mean an unobstructed path or corridor from a public thoroughfare or facility leading to or along the waters of the Town of Warren shoreline areas below the mean high water mark.

**VESSEL** – shall mean every description of watercraft, other than a seaplane on water, used or capable of being used as a means of transportation on water. Specifically excluded by this definition are floating homes.

**WATER DEPENDENT USE** – refers to those waterfront activities solely dependent upon the water for their use. (E.g. commercial fishing, marinas, boats building).

## APPENDIX C

### MANAGEMENT RESPONSIBILITIES

#### WITHIN THE TIDAL AREAS OF THE STATE

##### 1. The Federal Role

a) U.S. Army Corps of Engineers

The federal government, through the Army Corps of Engineers (ACE), exercises authority over the placement of structures and obstructions in the navigable waters of the nation. ACE regulatory programs also consider the environmental impacts of proposals and their consequences to elements of the “public interest.”

Through its permitting program, the ACE reviews certain projects located in navigable waters, involving dredging, filling, and placing structures such as moorings. Under the Corps program, moorings and their availability for use are considered integral parts of the ability to navigate. As such, moorings are subject to the ACE’s responsibility to ensure equal opportunity in navigation and commerce within the waters of the country. The public interest review often requires that the availability of moorings be non-exclusionary and that transient vessels be considered. Non-residents must be allowed opportunity to obtain a mooring space, and a certain percentage or proportion of available mooring space within a harbor must be made available to transients.

b) US Environmental Protection Agency

This federal agency is responsible for setting water quality criteria and approving all discharges for all states’ waters.

c) US Food and Drug Administration

The Food and Drug Administration (FDA) has the responsibility of water quality and (fish) food quality nationwide. FDA establishes the water quality classification criteria followed by DEM Water Resources in deciding safe shellfishery water quality standards.

##### 2. The State Role

The submerged lands, coastal resources and tidal waters of the State are all subject to the State of Rhode Island’s jurisdiction. These areas are owned by the State and held in trust

for the public. The State carries out several different management and regulatory programs to protect the rights and interests of the public in these areas, primarily through the CRMC and the Department of Environmental Management (DEM).

a) CRMC

The CRMC carries out its responsibilities in three ways: planning and management, coordinating functions and regulatory programs. Adopted in 1978 (revised in 1983), the Coastal Resources Management Program (CRMP) is the planning and management tool for the State. The CRMP identifies and designates six different water “types” in various locations throughout the state. The goals, policies and regulatory standards established for each of these areas, and activities taking place within them, are based upon an assessment of the characteristics of each individual water area and shoreline, the activity it supports, its potential capabilities for use in keeping with measures necessary to protect its resources, and the areas’ role in a balanced statewide plan. The Water Type Category and other regulations set forth what uses may be made of an area and how these uses may be carried out.

In order to promote the objectives of the state coastal program, CRMC functions as a binding arbitrator in disputes involving coastal resources and the interests of two or more municipalities and state agencies. Additionally, the Council carries out consulting and coordinating actions with local, state, regional and federal agencies and private interests. CRMC sponsors and conducts coastal research and advises the Governor, General Assembly and the public on coastal matters.

b) DEM

The Department of Environmental Management (DEM) has primary responsibility within the state for implementing the requirements of the Federal Clean Water Act, for managing the living resources of the state’s waters, and for overseeing federal and state land acquisition and open space programs. The DEM through its Division of Water Resources has promulgated specific regulations and water quality standards to implement its authority under the Clean Water Act. The water quality standards are different for the six water-type categories issued by the CRMC. The Water Quality Classifications and Standards are designed to protect and improve the quality of the State’s waters where they may be threatened or impaired by discharges of pollutants. The regulations are more restrictive in purer water areas such as Types 1 and 2 (see water quality map).

The regulations also contain an anti-degradation clause, which establishes that there can be no degradation of classified high-quality waters from their assigned classification due to a proposed activity. The regulations specifically identify concentrations of vessels, as in a

marina or mooring area, as a potential source of pollution. The DEM currently utilizes a methodology developed by the National Shellfish Sanitation Program and the US Environmental Protection Agency to determine the potential impacts to water quality from marinas and mooring areas. The DEM ensures compliance of an activity by certification through the issuance of a Water Quality Certification, a prerequisite for CRMC approval of many activities.

The DEM Division of Fish and Wildlife, in conjunction with the Marine Fisheries Council, manages the fish and shellfish fisheries within the state. Current programs include the regulation of commercial fisheries, shellfish propagation and transplanting, and establishment and protection of shellfish management areas. The Division provides comments on any proposal before CRMC, which might impact the resources within their jurisdiction.

### **The Local Role**

Chapter 4 of Title 46 of the General Laws of Rhode Island (Waters and Navigation) confers upon the coastal communities of the state certain powers concerning the regulation of public waters within their boundaries. These powers can be categorized into four different types: 1) management of vessel operation within the harbors; 2) management of anchorages and moorings; 3) regulation of such activities as water-skiing, skin-diving, regattas and marine parades; 4) management of shoreside resources potentially impacting the water.

The enabling legislation clearly grants the towns these powers to ensure the orderly development of the harbor areas within their jurisdictions. Specifically, the municipalities are granted authority and power to enact, through ordinance and an appointed harbormaster, rules and regulations and to regulate recreational boating activities such as water-skiing and boat speed. They may assign, remove, provide minimum standards for and set and collect a fee for the use of moorings. The cities and towns may also provide for the removal of wrecks, derelict or abandoned boats, docks or moorings. Finally, they may impose penalties for violations of such ordinances. The powers and duties granted through the enabling legislation may not be construed to abrogate the powers and duties of the CRMC.

While the enabling legislation grants considerable authority to the municipalities in managing certain uses of the harbor area, they are not specifically empowered to consider environmental impacts of activities, prevention of conflicts with other water dependent uses, or to decide resource allocation questions.

## **APPENDIX D**

### **DESCRIPTION OF COMMERCIAL FISHING INFRASTRUCTURE**

To be provided in September

## **APPENDIX E**

### **PUBLIC ACCESS INVENTORY**

- E-1    LIST OF RIGHT-OF-WAYS  
         WARREN COMPREHENSIVE PLAN**
- E-2    LIST OF RIGHT OF WAYS  
         CRMC DESIGNATED SITES**
- E-3    LIST OF RIGHT-OF-WAYS  
         CRMC/RI/PROGRESS REPORT 2001**
- E-4    LIST OF RIGHT OF WAYS  
         POTENTIAL SITES**

## **Appendix E-1**

### **LIST OF RIGHT-OF-WAYS**

#### **WARREN COMPREHENSIVE PLAN**

EVERETT ASSOCIATES, INC. 1991  
(CONFIRMED AND UNCONFIRMED)

1. NUNES FARM
2. CHASE LAND
3. PALMER AVENUE
4. CONNELLY AVENUE
5. JAMIEL'S PARK
6. BROWN STREET
7. KELLY STREET
8. COMPANY STREET
9. MILLER STREET
10. BAKER STREET
11. WASHINGTON STREET
12. SCHOOL STREET
13. TOWN DOCK
14. TOWN BEACH
15. BRIDGE STREET
16. BEACH STREET
17. MAPLE STREET
18. HANLEY'S POINT
19. HARRIS AVENUE
20. LAUREL LANE
21. PATTERSON AVENUE
22. LIBBY LANE
23. BARKER AVENUE
24. MANCHESTER LAND
25. CHACE AVENUE
26. SHORE DRIVE (1-7)
27. AUDUBON LAND
28. TOUISSET ROAD
29. BROWNELL STREET
30. MAPLE ROAD
31. SERPENTINE ROAD
32. GROVE AVENUE

## **APPENDIX E-2**

### **LIST OF Right OF WAYS CRMC DESIGNATED SITES**

#### **Public Rights-of-Way (ROW)**

Maple Street (R-1) Between Plat 15C Lot 1 and Plat 7 Lot 1 both being residential dwellings. A small asphalt/gravel ramp that extends west from the west end of Maple Street to a cobble beach bordering the Warren River best accessed at high tide. With a worn sign designating as a public right of way. At pole #8. (Beach Terrace) N41.43.031/W71.17.073.

Parker Avenue (R-2) Between Plat 13E Lots 130 and 27 clearly shown as a dead end street extending to the Kickemuit River. Parcels of land overgrown with brush with a walking path. Large storm drain (pipe) and a stony stream (drain bed). A guardrail separates the street from the lot. N41.43.305/W71.15.764.

Patterson Ave. (R-3) Between Plat 13D Lots 31 and 32 clearly shows as a dead end street extending to the Kickemuit River. A parcel of land covered with brush and marsh grass that extends east from the east end of Patterson Avenue to a wetland area. At pole #10. Just north of Laurel Park. N41.43.244/W71.15.742.

Harris Avenue (R-4) Plat 13E between Lots 118 and 119, both residential. A dead end street, paved with a low sea wall and a closure line relative to shell fishing, which coincides with the north side of the street. N41.42.920/W71.15.558

Shore Drive 3 (R-6) Plat 17, between Lots 118 and 119. An area of broken pavement and brush that extends west from the intersection of Shore Drive and Chase Avenue to a cobble beach bordering the Kickemuit River. At pole #12 (Touissett). N41.42.648/W71.14.525

Shore Drive 5 (R-7) Plat 17, between Lots 128 and 129. Limited parking and difficult to distinguish. N41.42.589/W71.14.496

Shore Drive 6 (R-8) Plat 17, between Lots 134 and 135. Limited parking and difficult to distinguish. N41.42.535/W71.14.487

Shore Drive 7 (R-9) Plat 17, between Lots 140 and 141. Limited parking and difficult to distinguish. N41.42.453/W71.14.463

The Town Landing (R-10) (Touissett Road) Plat 16, between Lots 259 and 27. No trespassing sign, very limited parking. N41.42.054/W71.14.530



### Appendix E-3

#### LIST OF RIGHT-OF-WAYS CRMC/RI/PROGRESS REPORT (AS AMENDED JUNE 2001, PG.17)

##### Street Designation

##### ROW Designation No.

Maple Street	R-1
Barker Avenue	Not Public
River View Street	Not Resolved
Parker Avenue	R-2
Patterson Avenue	R-3
Read Road	Not Resolved
Harris Avenue	R-4
Shore Drive (1) Not Public	
Shore Drive (2) Not Public	
Shore Drive (3) R-6	
Shore Drive (4) Not Public	
Shore Drive (5) R-7	
Shore Drive (6) R-8	
Shore Drive (7) R-9	
Road to Town Landing	R-10
Emery Road (1) Not Public	
Emery Road (2) Not Resolved	
Brownell Street	Not Public
Cedar Street	Not Public
Bay View Street	Not Public

##### Summary

Public	9
Not public	8
Not Resolved	3
<b>Total</b>	<b>20</b>

## Appendix E-4

### LIST OF RIGHT OF WAYS POTENTIAL SITES

1. **Company Street** – Visual, dead ends to Warren River, parking on both sides of street and on Westminster Street. Recent upgrade and new low wall, a bench and a small grassy area. Old sign designates this as a Public Right of Way. Plat 2 on the north side is, Lot 125, a residential home and on the south side is, Lot 30, a commercial structure and boatyard (Ginalski Marine).
2. **Crescent Street** – Visual, limited parking. Plat 1, at the intersection with Mill Street, between Lots 5 and 43. An area near the East Bay Bicycle Path, this would allow fishermen to access the East Bay Bicycle Bridge and Warren River without inconvenience to adjacent neighbors
3. **Locust Terrace** – Visual, limited parking/should be improved, near town property, a prime location for visitors to Hanley's Point. Plat 15C, between Lots 28 and 15.
4. **Barker Avenue** – (Broken Bridge) Plat 13B, between lots 82 and 96. Visual, Limited parking, CRMC recognized, Historical Massasoit Spring, Kidde Lot (playground). Shows River Street traveling 279 ft. to the waterfront.
5. **Maple Road** – Plat 16, between Lots 344 and 345. Limited parking, beach, dirt road dead-ends at waterfront (Mt. Hope Bay / Cole's River).
6. **Sunset Court** – (Asylum Road) Plat 16, between Lots 307 and 67. Visual, abuts marsh, nearby limited parking.
7. **Libby Lane** – Plat Visual, abuts marsh, nearby limited parking.
8. **Blackthorne Lane** – Plat 16, between Lots 329 and 330. Visual, abuts marsh, limited parking.
9. **Brownell Street** – (Cedar Street extension) Plat 16, between lots 180 and 181, 176 ft. leading to waterfront. CRMC recognized, limited parking, marked private.
10. **Shore Drive** – (exts: Prospect, Highland, and Pleasant View) Plat 17, no parking and not easily distinguishable. The Chase Avenue location the launch ramp is in poor condition and needs repair.
11. **Laurel Lane** – Plat 13d, between lots 338 and 342, clearing shown to the Kickemuit River, limited parking, marked private, Laurel Lane Association controls access.

12. **Clark Road** – Plat 13E, between Lots 314 and 310. No parking dead-ends at waterfront.
13. **Beach Street** – Plat 7, between Lots 119 and 41. Street dead-ends at waterfront, beach, limited parking and a low seawall at the end of the street.
14. **The Town Commercial Docking Facility** – (Extension of Wheaton Street) Plat 5, Lot 74. Includes a concrete launch ramp, two timber-framed docks (one with finger piers) with a total capacity of twenty-five boats for commercial fisherman and an adjacent parking lot capable of holding twenty-five vehicles. Off Water Street behind the sewer treatment plant and next to the main pump out facility.
15. **Washington Street** – Clearly shows on Town Plat Maps as extending to the Warren River. This extension also provides access and serves as a driveway for the adjacent business (Warren Boat Works). On the north side is a residential home (Plat 4, Lots 112 & 113) and on the south side is a commercial structure (Plat 5, Lot 1).
16. **Wharf Tavern** – Plat 4 Lot 1. Visual, Limited Street parking on Miller Street and Water Street, the Wharf Tavern parking lot is private. Public walkway on boardwalk from the end of Miller Street around outer perimeter of restaurant (river side). This is not listed on CRMC listing/progress report as amended June 2001 this location should be added and designated. The sign, which is posted reads: “This Public Access is Being Provided by the Coastal Resources Management Council in Cooperation with the Owners. Public Access is permitted from 7 am to 10 pm Subject to Local Ordinances and Laws. For Further Information Call CRMC at 266-2476.”
17. **Miller Street (Extension)** – Visual, Street dead-ends to Warren River. Between Plat 4, Lot 1 and Plat 2 Lot 41. Limited street parking including angle parking for five vehicles. Limited view of Warren River due to the adjacent commercial buildings, Wharf Tavern, Lot 1, to the south and Dyer Boats, Lot 41, to the north side.
18. **Riverview St. and Barker Ave.** – Limited parking, leading to the Kickemuit River. Recent development of the Riverview Plat resulted in the town gaining additional deeded land at this location, Plat 13B Lots 86 and 87, but also impaired parking and access due to a fence (enclosing drainage retention pond) and pond outlet pipe. Town map clearly shows Riverview Street extending to the river between Lot 85 (town owned) and Lot 86.
19. **The Old Harbor Marine** – Plat 4, Lot 96. This is a 48,570 square foot area with over 400 foot of waterfront, recently available and purchased by the Town of Warren on March 15, 2003. This is due to a grant made available, by the Rhode Island Department of Transportation, for a Ferry Dock and providing an easement for public access as well as donations by local citizens, The Warren Waterfront

Committee, and business professionals. The potential for this location is great as it has several buildings and dockage including three main docks with ten finger piers. The town also has plans for a new Harbor Masters Office and a boardwalk around the parameter that will extend as far as Baker Street.

20. **Baker Street** (Extension) – Visual, Plat 4, between Lots 139 and 4. Dead ends to Warren River and limited parking. The Town of Warren has received a grant in 2002 and is presently working to improve this area. The Town also plans on a connecting walkway to the new access and ferry point as stated above (Harbor Marine). Recently upgraded at the end by the town with a rebuilt wall and brick area. On the south side is a commercial structure / waterfront business (Boatyard). This area would be suitable for an extensive site with additional parking, a picnic area and a launch.

## **APPENDIX F**

### **FISH AND WILDLIFE SPECIES**

#### **WARREN, PALMER AND KICKEMUIT RIVERS**

##### **Fish Species**

American Eel  
Atlantic Tomcod  
Sheepshead Minnow  
Stickleback  
Blackfish  
Winter Flounder  
White Mullet  
Poggie or Menhaden  
Spiny Dogfish  
Searobin  
Striped Bass  
Wealfish or Weakfish

Oyster Toadfish  
Striped Killifish  
Atlantic Silverside  
Bluefish  
Shorthorn Sculpin  
Summer Flounder  
Atlantic Herring  
Northern Puffer  
Sand Lance  
Black Seabass  
Scup or Porgy  
Yellowtail Flounder

##### **Amphibians**

Spotted Salamander  
Northern Dusky Salamander  
Northern Two-Lined Salamander  
Spring Peeper  
Bullfrog  
Wood Frog  
Frog  
Pickerel Frog

Red-Spotted Newt  
Redback Salamander  
American Toad  
Gray Treefrog  
Green Frog  
Northern Leopard

##### **Invertebrate**

Blue Shell Crab  
Little Neck Clam  
Salt Marsh Snail  
Bent Mussel  
Scallop  
Crayfish

Horse Shoe Crab  
Quahog  
Ribbed Mussel  
Common Oyster  
Lobster  
Green Crab

## **APPENDIX G**

### **MAPS**

- 1. Harbor Management Area**
- 2. CRMC Water Type Classification**
- 3. Refer to U.S Navigation Chart 13221**
- 4. DEM Water Use Classification**
- 5. Refer to FEMA Flood Maps – On file in Town  
Clerk's Building Official, Harbor Master offices**
- 6. Right of Way Locations**
- 7. Existing Conditions/Resources**
  - 7A – Forest and Wetlands
  - 7B – Groundwater Resources
  - 7C – Watershed Sub-basin & Surface Water
  - 7D – Biodiversity Resources
  - 7E – Coastal Wetlands
- 8. Existing Moorings and Marinas**
  - 8A – Mooring Field 1
  - 8B – Mooring Field 2
  - 8C – Mooring Field 3
  - 8D – Mooring Field 4
  - 8E – Mooring Field 5
  - 8F – Mooring Field 6
  - 8G – Mooring Field 7
  - 8h – Proposed Mooring Fields





Scale 1:48,000

**RIGIS**

2000 0 2000 4000 6000 8000 10000 Feet

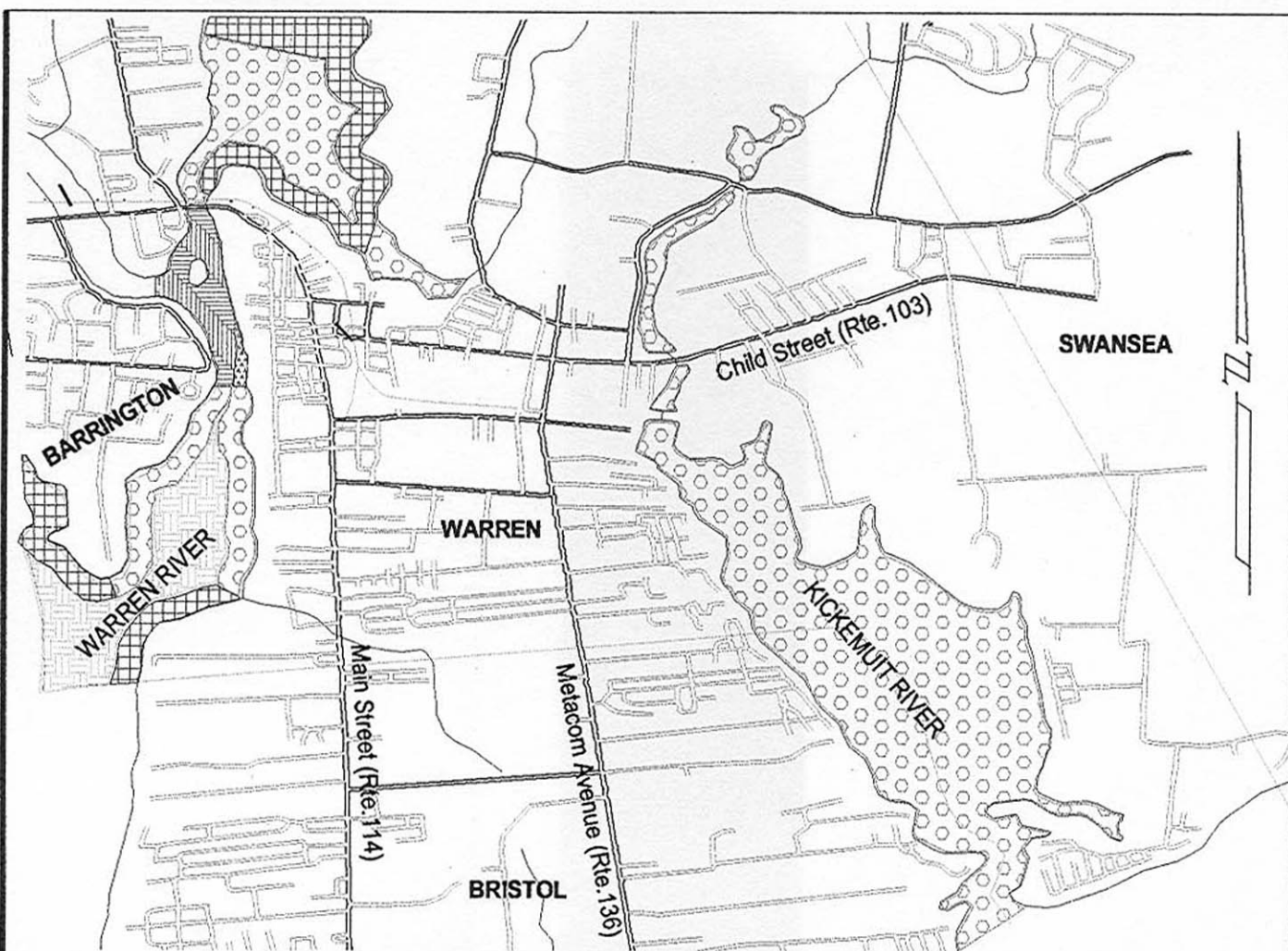


**Town of Warren, RI  
Map 1  
Harbor Management Areas**



# TOWN OF WARREN, RI

## MAP NUMBER 2



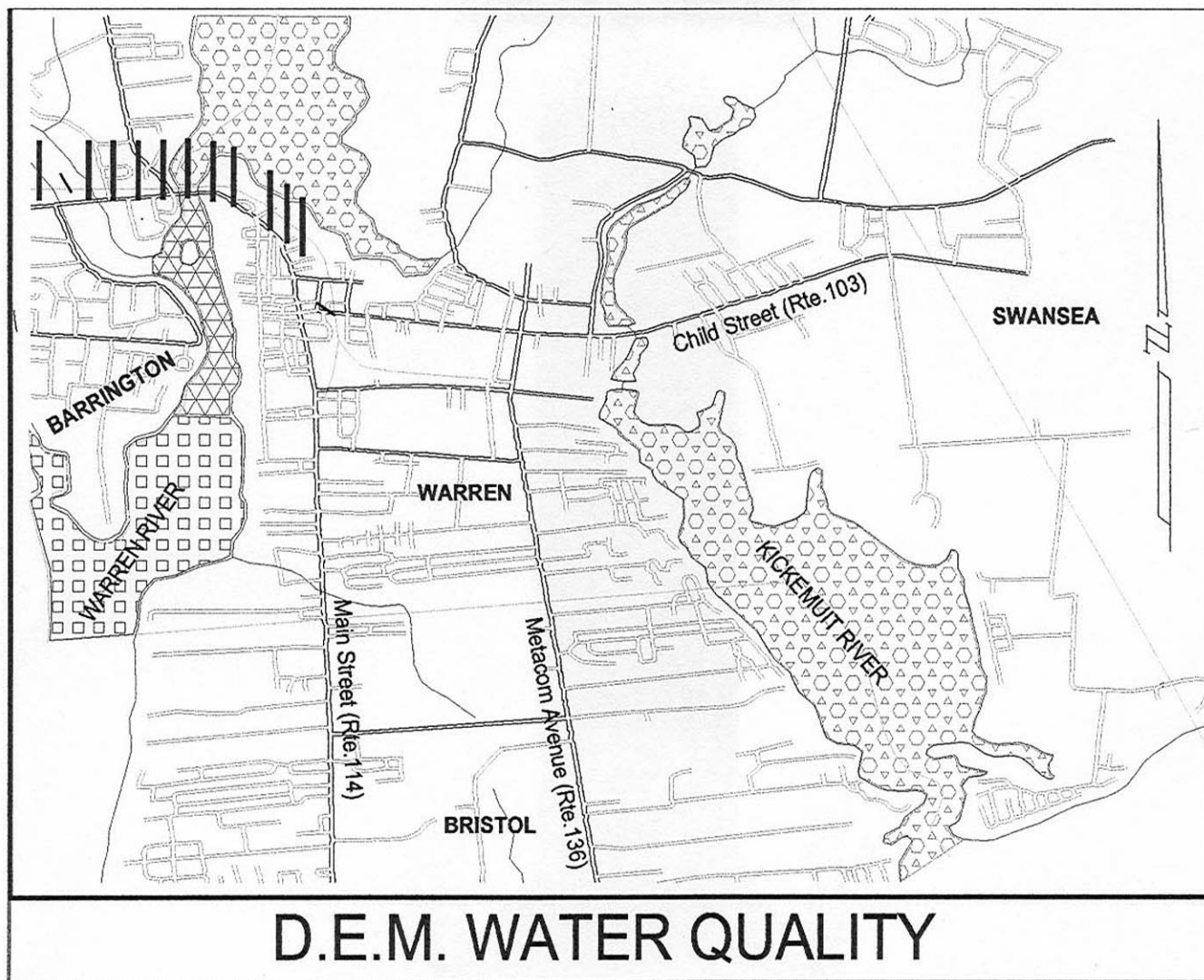
### C.R.M.C. WATER TYPE CLASSIFICATION

TYPE	USE	LEGEND
TYPE 1	CONSERVATION AREAS	
TYPE 2	LOW-INTENSITY USE	
TYPE 3	HIGH-INTENSITY USE	
TYPE 4	MULTIPURPOSE WATERS	
TYPE 5	COMMERCIAL AND RECREATIONAL	
TYPE 6	INDUSTRIAL WATERFRONTS/ COMMERCIAL NAVIGATIONAL CHANNELS	
		<b>N/A</b>



# TOWN OF WARREN, RI

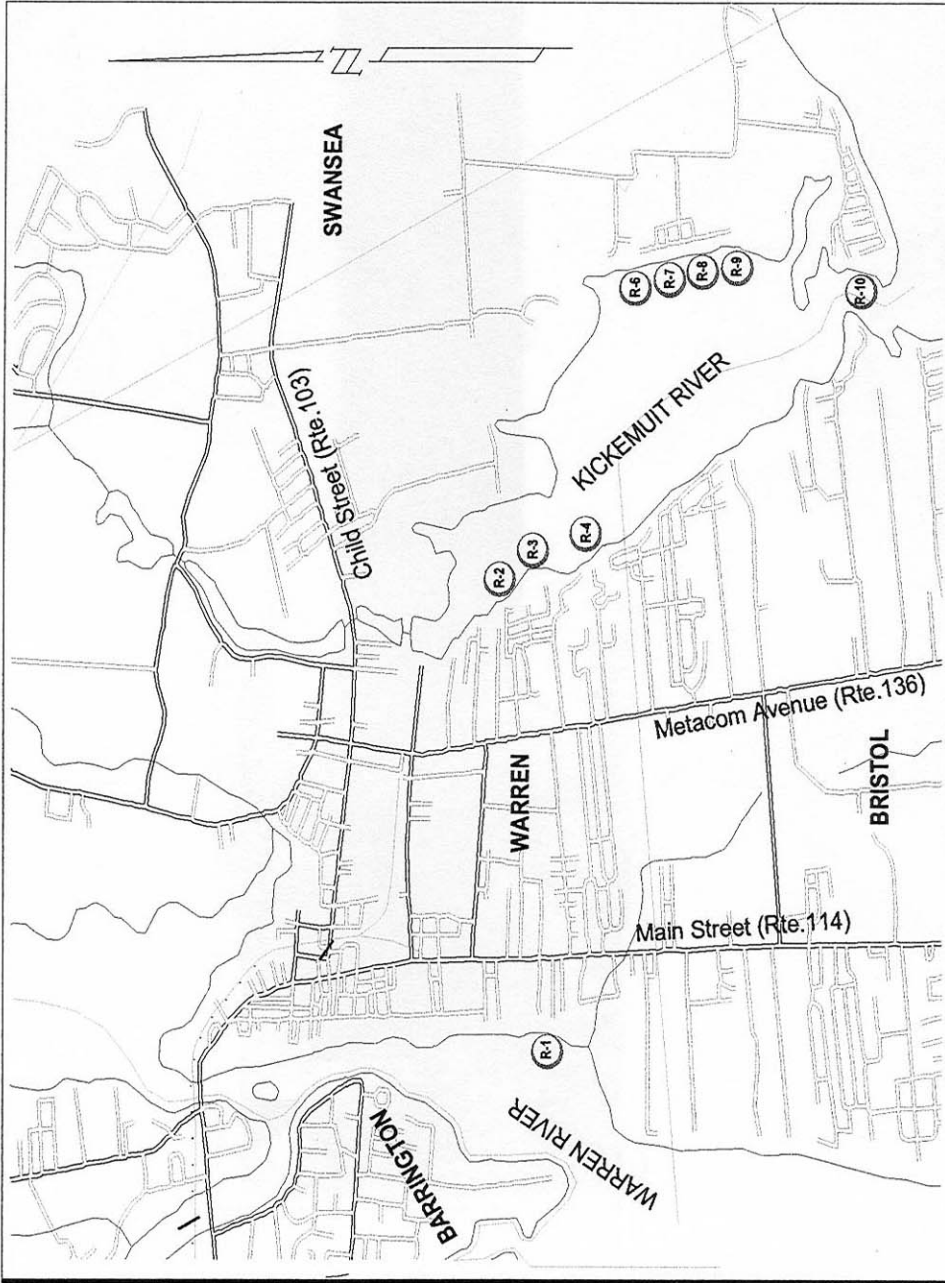
## MAP NUMBER 4



TYPE	USE	LEGEND
CLASS-SA	Bathing and contact recreation, shellfish harvesting for human consumption, fish and wildlife habitat	
CLASS-SB	Shellfish harvesting for human consumption after depuration, bathing and contact recreation, fish and wildlife habitat	
CLASS-SC	Boating and other secondary contact recreational activities, fish and wildlife habitat, industrial cooling, good aesthetic value	

# TOWN OF WARREN, RI

## MAP NUMBER 6



### ROW LOCATION MAP

R-1	MAPLE STREET	SB
R-2	PARKER AVENUE	SA
R-3	PATTERSON AVE	SA
R-4	HARRIS AVENUE	SA
R-6	SHORE DRIVE-3	SA
R-7	SHORE DRIVE-5	SA
R-8	SHORE DRIVE-6	SA
R-9	SHORE DRIVE-7	SA
R-10	TOWN LANDING	SA
ROW NO. & LOC.		*

### INDEX

\* D.E.M. Water Quality Classification Standard

**Appendix G**

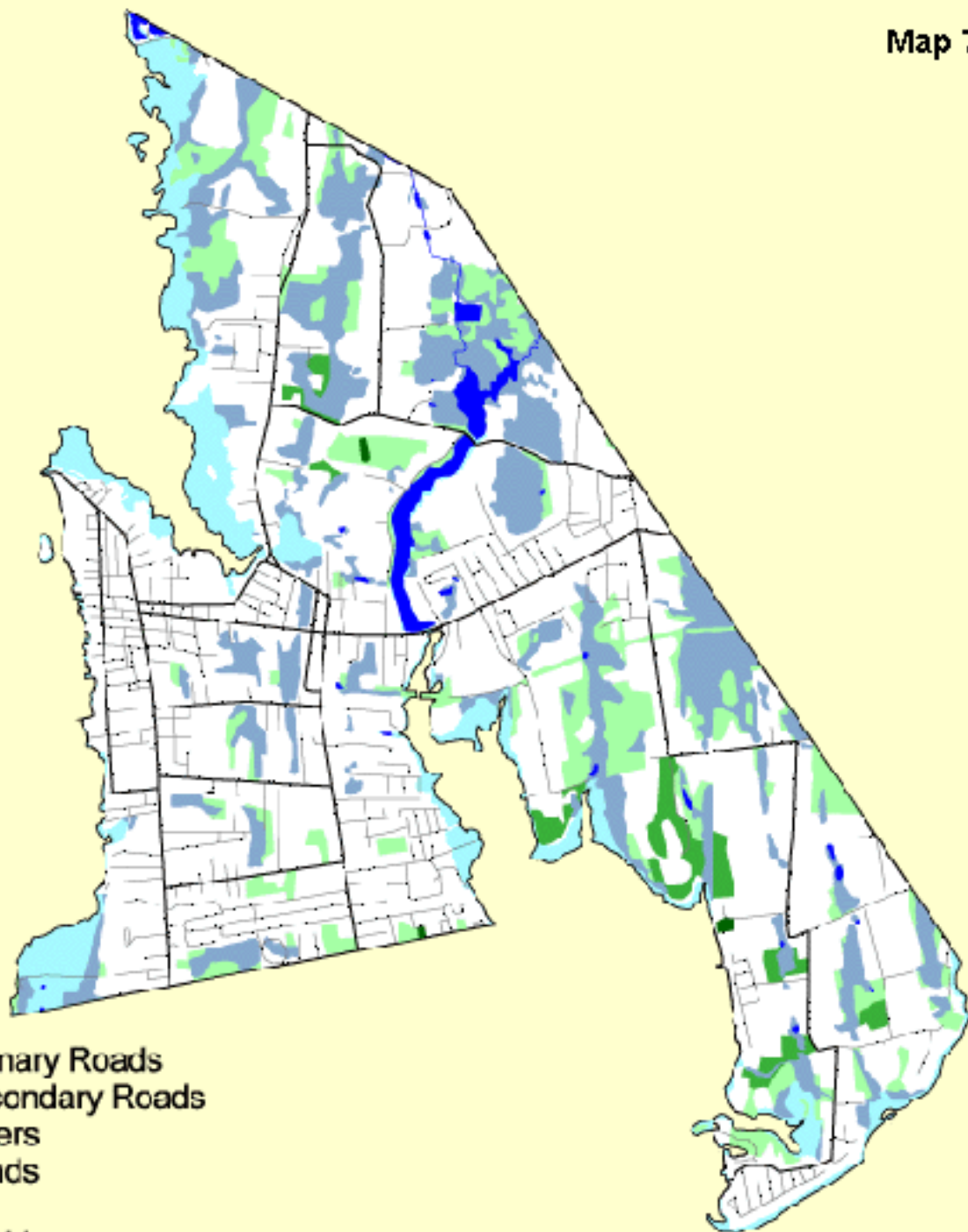
**Map Series 7**

-

**Attached**

# Forest & Wetland Resources

Map 7A



- Primary Roads
- Secondary Roads
- Rivers
- Ponds
- Forests
  - Deciduous
  - Mixed
  - Evergreen
- Wetlands
  - Coastal
  - Freshwater



Warren, RI

RIGIS

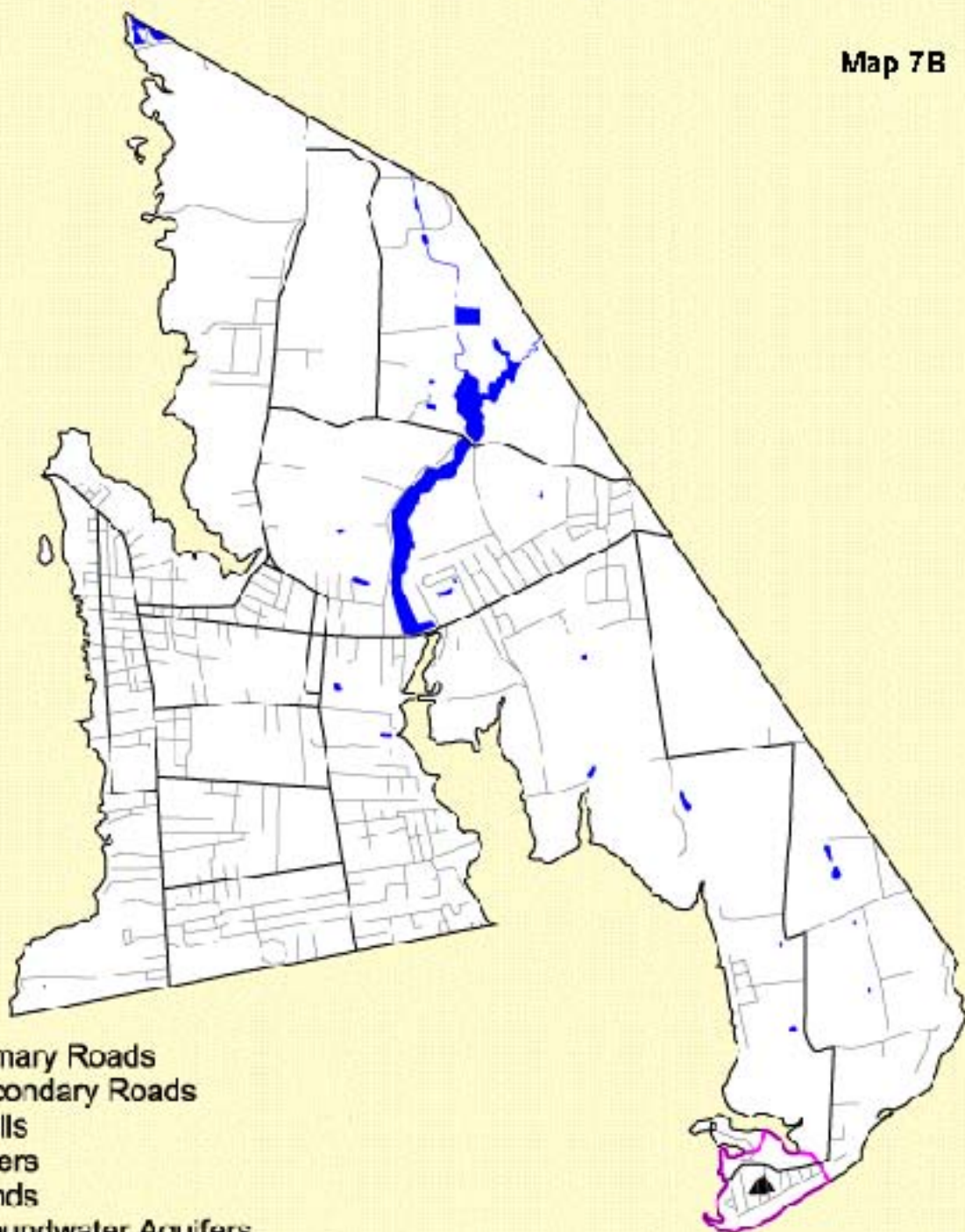


8



# Groundwater Resources

Map 7B



- Primary Roads
- Secondary Roads
- Wells
- Rivers
- Ponds
- Groundwater Aquifers
- Groundwater Recharge
- Wellhead Protection Areas



0.5 0 0.5 1 Mile

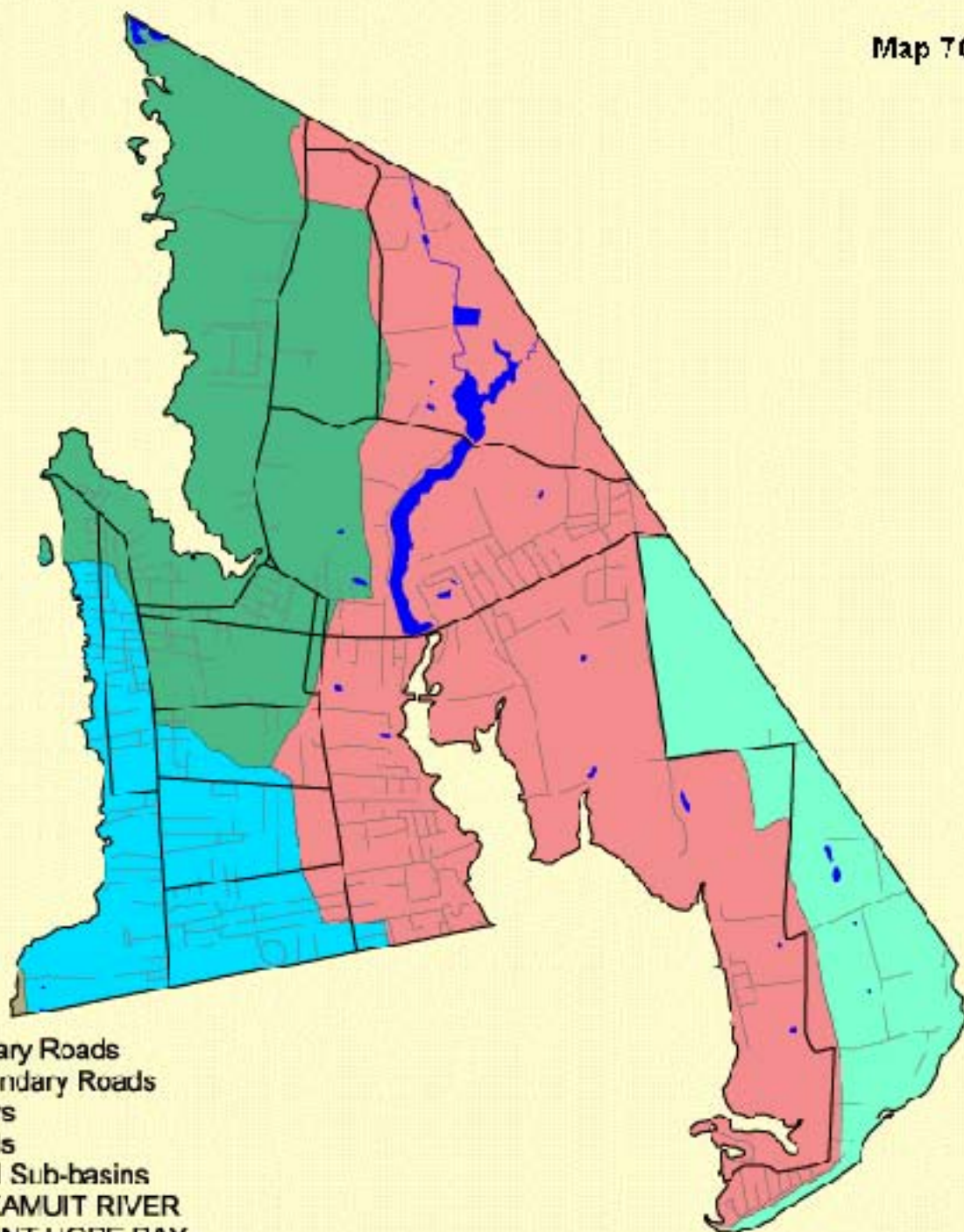
Warren, RI

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# Watershed Sub-basins & Surface Water

Map 7C



-  Primary Roads
-  Secondary Roads
-  Rivers
-  Ponds
- Watershed Sub-basins**
-  KICKAMUIT RIVER
-  MOUNT HOPE BAY
-  NARRAGANSETT BAY
-  PALMER RIVER
-  WARREN RIVER



0.5 0 0.5 1 Miles



Warren, RI

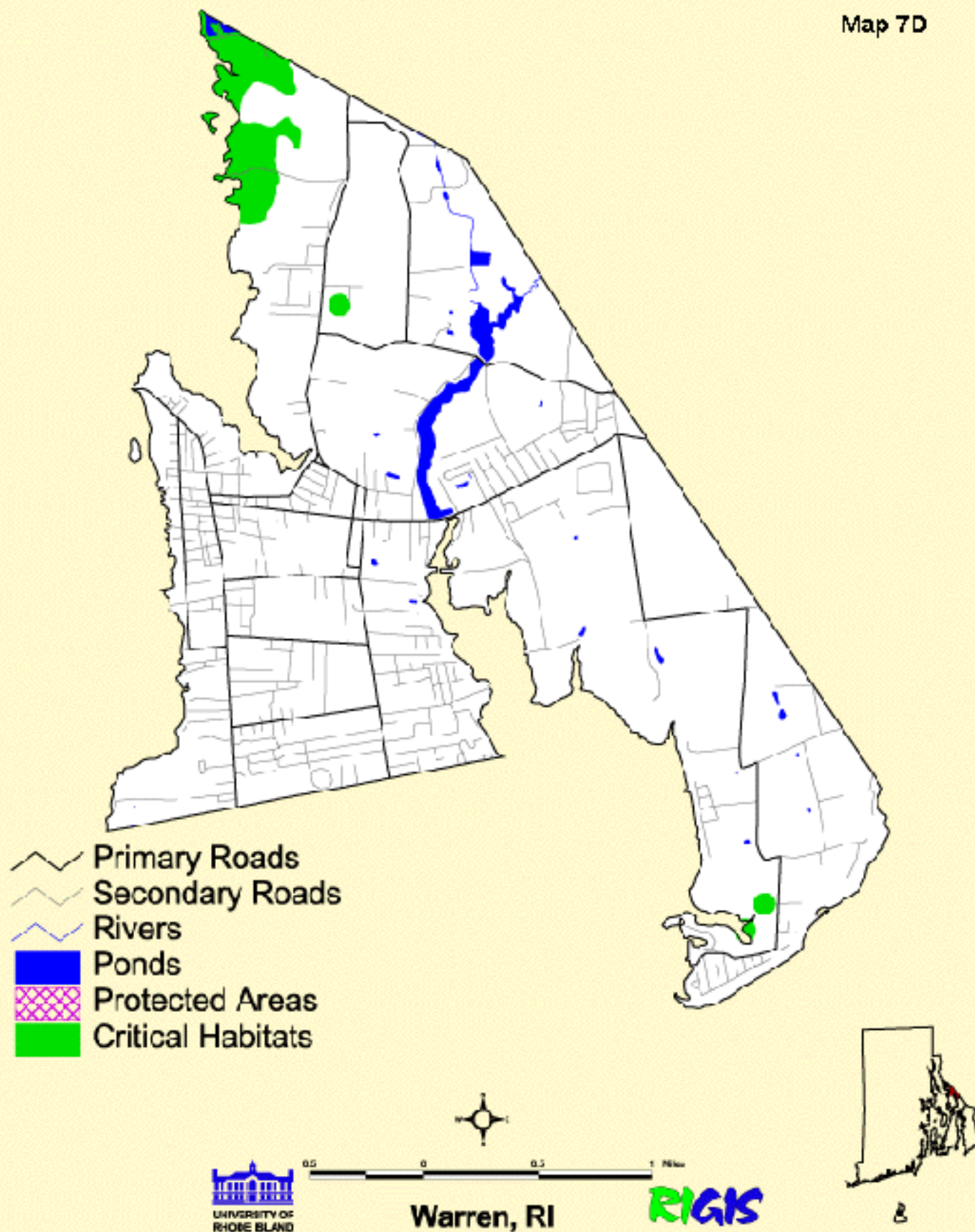
**RIGIS**





# Biodiversity Resources

Map 7D



# Coastal Wetlands

Map 7E



-  Primary Roads
-  Secondary Roads
- Coastal Wetlands**
-  Beaches
-  Eelgrass Beds
-  Dunes
-  Brackish Marsh
-  Phragmites Marsh
-  Salt Marsh
-  Scrub Shrub
-  Tidal Flats
-  Oyster Reefs
-  Rocky Shore
-  Streambeds



1 0 1 Mile



Warren, RI

RIGIS



8



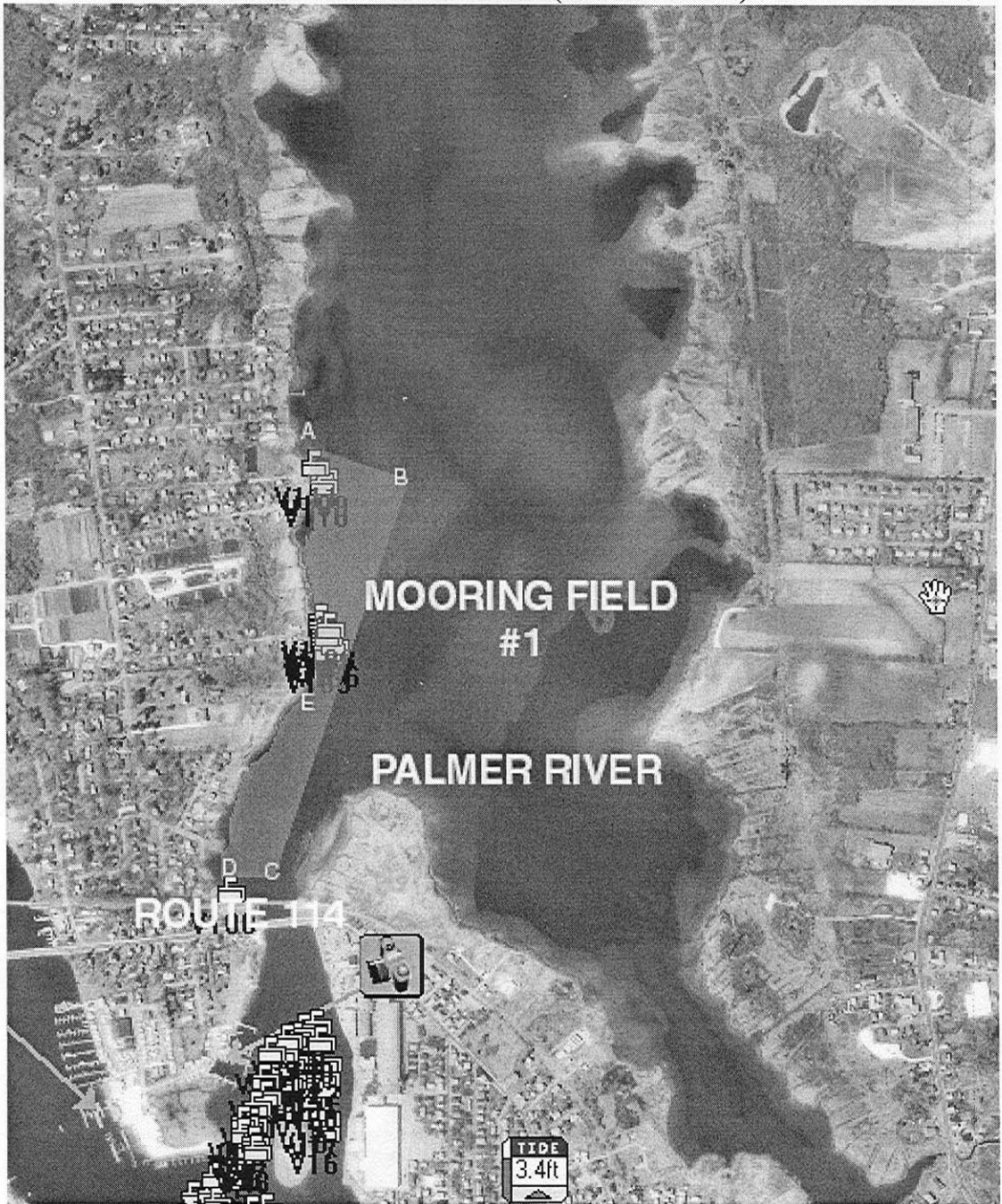
**Appendix G**

**Map Series 8**

-

**Attached**

## MOORING FIELD 1 (Palmer River)



**Total Moorings: 13**

**Water Depth:** Average depth approximately 5 ft.

**Priority Use:** Minimal Boating

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

**Swimming Areas:** none

**Mooring Field Status:** Open (moorings available)

**Vessels over 25 feet in length:** 0

**Mooring Boundaries:**

Mark A: 41.44.574N – 71.17.321W

Mark B: 41.44.560N – 71.17.260W

Mark C: 41.44.277N – 71.17.411W

Mark D: 41.44.297N – 71.17.445W

Mark E: 41.44.518N – 71.17.312W

## MOORING FIELD 2 (North end of the Warren River)



**Total Moorings:** 93

**Water Depth:** Average depth approximately 16 ft.

**Priority Use:** Commercial and Recreational Boating

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

**Swimming Areas:** Warren Town Beach

**Mooring Field Status:** Mooring Field is at capacity. Waiting list is in place.

**Vessels over 25 feet:** Approximately 61 moorings

**Mooring Boundaries:**

Mark A: 41.44.150N – 71.17.355W

Mark B: 41.43.957N – 71.17.483W

Mark C: 41.43.679N – 71.17.276W

Mark D: 41.43.446N – 71.17.334W

Mark E: 41.43.447N – 71.17.279W

Mark F: 41.43.680N – 71.17.217W

Mark G: 41.43.904N – 71.17.294W

Mark H: 41.44.153N – 71.17.302W:



### MOORING FIELD 3 (Lower Warren River)



**Total Moorings:** 52 Total

**Water Depth:** Average depth approximately 11 ft.

**Priority Use:** Commercial and Recreational Boating

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

**Swimming Areas:** Warren Town Beach

**Mooring Field Status:** Mooring Field almost at capacity. Waiting list is in place.

**Vessels over 25 feet:** Approximately 26 boats

#### **Mooring Boundaries:**

Mark A: 41.43.272N – 71.17.251W

Mark B: 41.43.027N – 71.17.221W

Mark C: 41.42.900N – 71.17.318W

Mark D: 41.43.047N – 71.17.121W

## MOORING FIELD 4

(Kickemuit River: Harris Ave to the Warren / Bristol Town line.)



**Total Moorings:** 64

**Water Depth:** Average depth approximately 6-8 ft.

**Priority Use:** Recreational Boating

**Number of Docks:** To be determined in the 2004 Boating Season

**Swimming Areas:** Laurel Park Beach

**Mooring Field Status:** Mooring Field is close to capacity. Waiting list already in place

**Vessels over 25 feet:** 18

### Mooring Boundaries:

Mark A: 41.43.061N – 71.15.545W

Mark B: 41.43.103N – 71.15.444W

Mark C: 41.42.928N – 71.15.353W

Mark D: 41.42.862N – 71.15.467W

(East side of the Kickemuit River)



**Total Moorings: 49**

**Water Depth:** Average depth approximately 6-8 ft.

**Priority Use:** Recreational Boating

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

### Swimming Areas: Laurel Park Beach and Chase Point Beach

**Mooring Field Management:** Mooring Field near capacity. Waiting list already in place

**Vessels over 25 feet: 19**

### Mooring Boundaries:

Mark A: 41.42.891N – 71.14.862W

Mark B: 41.42.831N – 71.14.850W

Mark C: 41.42.351N – 71.14.642W

Mark D: 41.42.448N – 71.14.491W



(Entrance to the Kickemuit River)



**Water Depth:** Average depth approximately 10 ft.

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

**Mooring Field Status:** Mooring Field is at capacity. Waiting list is in place.

### Mooring Boundaries:

Mark B: 41.42.161N – 71.14.697W

Mark D: 41.41.967N – 71.14.624W

Mark F: 41.42.044N – 71.14.549W

THOMAS C. FAYENBERG, JR. AND JAMES H. ROSSON

**MOORING FIELD 7**  
(Paralleling Brownell Street / Mt. Hope Bay)



**Total Moorings:** 42

**Water Depth:** Average depth approximately 12ft.

**Priority Use:** Recreational Boating

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

**Swimming Areas:** Beach runs the length of mooring field

**Mooring Field Status:** Mooring Field is not at capacity.

**Vessels over 25 ft:** 12

**Mooring Boundaries:**

Mark A: 41.41.868N – 71.14.463W

Mark B: 41.41.806N – 71.14.419W

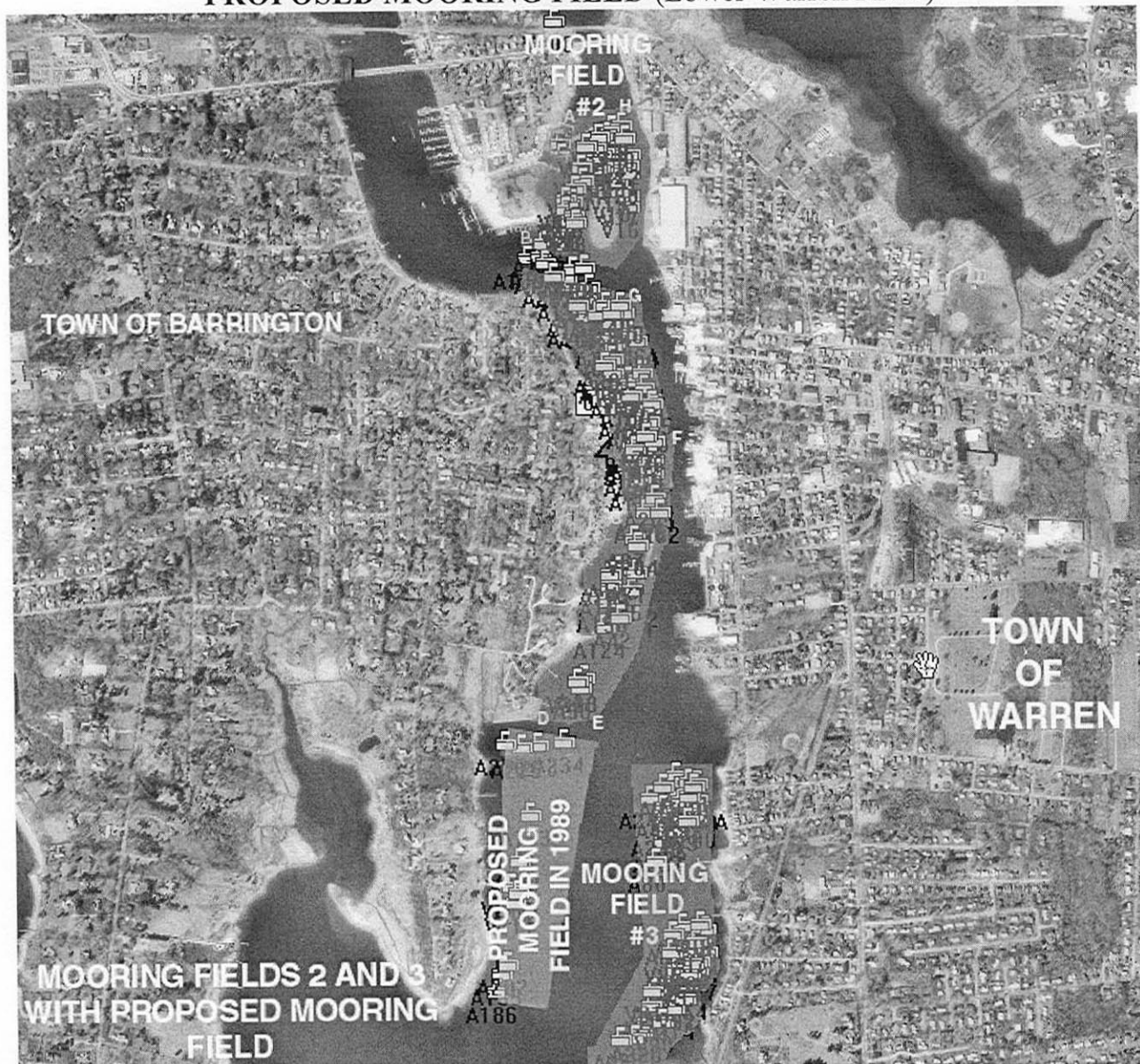
Mark C: 41.42.116N – 71.13.774W

Mark D: 41.42.184N – 71.13.880W

Mark E: 41.42.100N – 71.13.591W



## PROPOSED MOORING FIELD (Lower Warren River)



**Total Moorings:** 12

**Water Depth:** Average depth approximately 8 ft.

**Priority Use:** Commercial and Recreational Boating

**Number of Docks and Structures:** To be determined in the 2004 Boating Season

**Swimming Areas:** Warren Town Beach

**Mooring Field Status:** OPEN

**Vessels over 25 feet:** Approximately 4 moorings

### **Mooring Boundaries:**

Mark A: 41.43.325N – 71.17.506W

Mark B: 41.42.951N – 71.17.513W

Mark C: 41.42.953N – 71.17.467W

Mark D: 41.43.313N – 71.17.360W

## APPENDIX H

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## **APPENDIX I**

### **Warren Historic Waterfront Plan 2002 Town Planner Office**

## **APPENDIX J**

### **Town of Warren Harbor and Vessels Ordinance Chapter 10 Town of Warren Code of Ordinances**

## **APPENDIX K**

### **Storm Preparedness and Hazard Mitigation Plan Warren Harbor Master's Office Town of Warren**

**October 2003**